

JANUARY 2000

# Asimov's

## SCIENCE FICTION

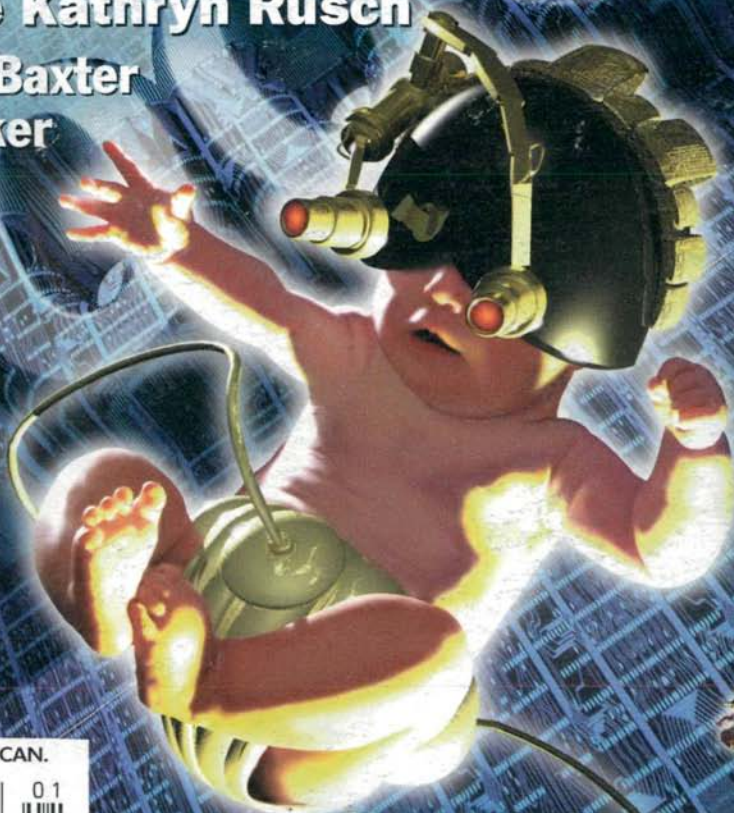
Explore a new Century!

**Millennium Babies**

**Kristine Kathryn Rusch**

**Stephen Baxter**

**Kage Baker**



**Slavery in Space!**  
**Heart of Glass**  
**William Barton**

ALBERT CURTIS JR  
RD 30  
RDMORE PA 19003-2601

ND CPY\*\*\*\*\* 3-DIGIT 190  
R2430A098 1#647724

.95 CAN.



LICENSED TO UNZ.ORG  
ELECTRONIC REPRODUCTION PROHIBITED

# Discover the Secrets of Fiction Writing that Sells!



#10501 \$19.99



#10506 \$16.99 pb



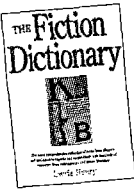
#10426 \$15.99



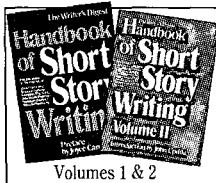
#10507 \$16.99 pb



#10464 \$22.99

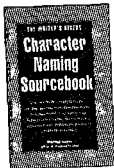


#48008 \$18.99



Volumes 1 & 2

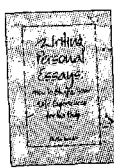
#43057  
\$27.98 pbs  
Count both  
books as  
one selection.



#10390 \$18.99



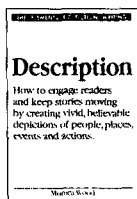
#10025 \$19.99



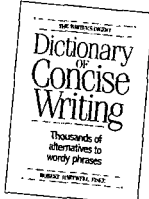
#10438 \$17.99



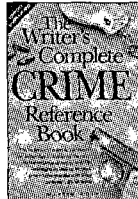
#48003 \$17.99



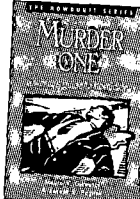
#10451 \$15.99



#10482 \$19.99



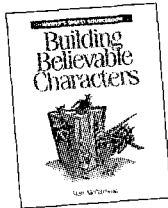
#10371 \$19.99



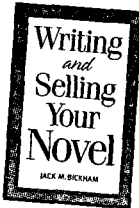
#10498 \$16.99 pb



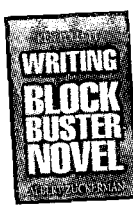
#10500 \$21.99



#10463 \$17.99



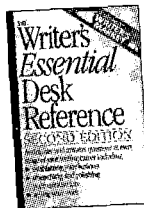
#10509 \$17.99



#10393 \$18.99



#48028 \$16.99 pb



#10485 \$24.99

## HOW THE CLUB WORKS

You'll receive the *BULLETIN* about fourteen times a year, featuring a Main Selection and 100 or more of the newest and best writing instruction books. If you want the Main Selection, do nothing, and it will be sent automatically.

If you want a different book, or want nothing that month, you'll always have at least 10 days to decide and notify the Club by returning your Selection Card. If late delivery of the *BULLETIN* should ever cause you to receive a book you don't want, you may return it at Club expense. As a new member you agree to purchase one book from the *BULLETIN* within the next six months; after that, you may cancel your membership at any time. Each time you buy a book, your membership will be renewed for six months from the purchase date.

## AS A CLUB MEMBER, YOU'LL ENJOY:

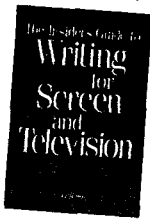
- **DISCOUNTS FROM 15-65%** on every book you buy!
- **FREE SHIPPING & HANDLING** on prepaid orders (after this joining offer)!
- **SATISFACTION GUARANTEED 100%!**

# TAKE 2 BOOKS FREE

WITH 1 FOR JUST \$9.95 WHEN YOU JOIN WRITER'S DIGEST BOOK CLUB!



48017 \$18.99



#10483 \$17.99



#10470 \$16.99



#10395 \$16.99



#10512 \$27.99 pb

## MEMBERSHIP SAVINGS CERTIFICATE

☐ **YES!** I want to join Writer's Digest Book Club. Please sign me up and send me:

|                                             |             |
|---------------------------------------------|-------------|
| My first FREE book # _____                  | <b>FREE</b> |
| and my second FREE book # _____             | <b>FREE</b> |
| with my third book # _____ for only _____\$ | 9.95        |
| *plus shipping and handling _____\$         | 6.53        |
| all for just _____\$                        | 16.48       |

(Payment in U.S. funds must accompany order. Ohio residents add 60¢ tax; Canadians in postal codes A, B or E add \$2.47 HST; all other Canadians add \$1.15 GST.)

☐ Check enclosed or Charge my ☐ VISA ☐ MasterCard

Acct #                 Exp. Date:

I have read How The Club Works and agree to buy 1 more book in the next 6 months.

Signature \_\_\_\_\_  
required on all certificates

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State/Prov \_\_\_\_\_ ZIP/PC \_\_\_\_\_

**Writer's Digest**  
**BOOK CLUB**

Limited time offer good for new members in U.S. and Canada only. U.S. funds only. Allow 3-4 weeks for delivery. All applications subject to approval.

P.O. Box 12948 Cincinnati, Ohio 45212-0948

AS67

# Asimov's

## SCIENCE FICTION

Vol. 24 No. 1 (Whole Number 288)  
January 2000

Next Issue on Sale  
December 21, 1999



8



94

Cover illustration by  
Fred Gambino

[www.asimovs.com](http://www.asimovs.com)

### NOVELLA

94 Heart of Glass \_\_\_\_\_ William Barton

### NOVETTES

8 Millennium Babies \_\_\_\_\_ Kristine Kathryn Rusch  
48 Black Smoker \_\_\_\_\_ Kage Baker  
66 The True Story of Professor Trabuc  
and His Remarkable Voyages  
Aboard the Sonde-Ballon De La  
Mentalité \_\_\_\_\_ Jim Cowen

### SHORT STORIES

38 Behold Now Behemoth \_\_\_\_\_ Stephen Baxter  
86 Eden \_\_\_\_\_ Therese Pieczynski

### POETRY

136 10 Things You Can't Do  
Inside a Space Helmet \_\_\_\_\_ G.O. Clark

### DEPARTMENTS

4 Reflections:  
Greetings from the Past \_\_\_\_\_ Robert Silverberg  
131 On Books \_\_\_\_\_ Peter Heck  
137 Index \_\_\_\_\_  
140 Fourteenth Annual Reader's Awards Ballot \_\_\_\_\_  
142 The SF Conventional Calendar \_\_\_\_\_ Erwin S. Strauss

Gardner Dozois: Editor

Isaac Asimov: Editorial Director (1977-1992)

Peter Kanter: Publisher

Sheila Williams: Executive Editor

Warren Rivers: Editorial Director

Stories from Asimov's  
have won thirty-two  
Hugos and twenty-  
four Nebula Awards,  
and our editors have  
received thirteen  
Hugo Awards for Best  
Editor.

Asimov's was also the  
1999 recipient of the  
Locus Award for Best  
Magazine.

*Asimov's Science Fiction* (USPS 522-310). Published monthly except for a combined October/November double issue by Dell Magazines, a division of Crosstown Publications. One year subscription \$39.97 in the United States and U.S. possessions. In all other countries \$47.97 (GST included in Canada), payable in advance in U.S. funds. Address for subscription and all other correspondence about them, Box 54033, Boulder, CO 80322-4033. Allow 6 to 8 weeks for change of address. Address for all editorial matters: *Asimov's Science Fiction*, 475 Park Avenue South, New York, N.Y. 10016. *Asimov's Science Fiction* is the registered trademark of Dell Magazines, a division of Crosstown Publications. © 1999 by Dell Magazines, a division of Crosstown Publications, 6 Prowitt Street, Norwalk, CT 06855. All rights reserved. printed in the U.S.A. Protection secured under the Universal and Pan American Copyright Conventions. Reproduction or use of editorial or pictorial content in any manner without express permission is prohibited. All submissions must include a self-addressed, stamped envelope; the publisher assumes no responsibility for unsolicited manuscripts. Periodical postage paid at Norwalk, CT and additional mailing offices. Canadian postage paid at Montreal, Quebec, Canada Post International Publications Mail, Product Sales Agreement No. 260657. POSTMASTER, send change of address to *Asimov's Science Fiction*, Box 54625, Boulder, CO 80328-4625. In Canada return to Transcontinental Sub Dept, 525 Louis Pasteur, Boucherville, Quebec, J4B 8E7. ISSN 1065-2698. GST #R123293128

Printed in CANADA



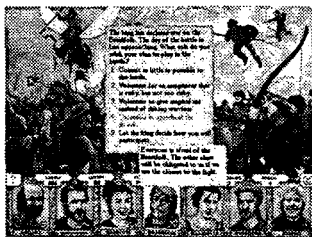
# III KING OF DRAGON PASS

*Adventure and Heroism on a Magical Frontier*



## Played Any Good Stories Lately?

Immerse yourself in the mythical world of Glorantha, home of heroes, gods and high adventure. Take charge of a small clan and colonize the haunted land of Dragon Pass. Discover hundreds of intriguing plots where you'll search for treasures. Barter for magic. Reenact mythical deeds. Nurture warriors. Clash with enemies. And make life or death decisions about the fate of your people.



You are not alone. Pick leaders to advise you, in keeping with their unique personalities.

You are the key to your clan's destiny – do they go down in infamy, forgotten by all? Or can you lead your people to glory by becoming King of Dragon Pass?

[www.a-sharp.com/ka](http://www.a-sharp.com/ka)

To order King of Dragon Pass, visit our web site today.



Windows/Mac

LICENSED TO UNZ.ORG  
ELECTRONIC REPRODUCTION PROHIBITED

# REFLECTIONS

by Robert Silverberg

## GREETINGS FROM THE PAST

So here we all are, finally, in the year 2000. Not.

I'm not there because I write these columns about six months ahead of cover date, so that Sheila Williams, otherwise known as the Force, will have enough time to carve the words for each issue onto the wooden blocks and print the pages and staple them together and paste the covers on. So I'm actually still back there in the past right now, writing this in the spring of 1999, in order for it to appear in next January's issue.

And you're not there in the year 2000 either—not quite, anyway, because monthly magazines traditionally go on sale a little ahead of their actual cover dates. This issue is dated January 2000, all right, but you're going to see it in the waning weeks of 1999.

Still and all, nobody can deny that we do indeed totter on the very brink of Y2K—a year I've dreamed of reaching ever since I was a small boy, fifty-plus years ago, messing around with the primordial science-fiction magazines of that era when I should have been doing my Latin homework.

Let's not argue again about whether the year 2000 really does begin the new millennium. That one's been decided by popular vote, and so be it. Arithmetical common sense to the contrary, the twenty-first century and the third millennium are both going to arrive on January 1, 2000, so far as nearly everybody is concerned, and purists like Arthur C. Clarke and yours truly are simply going to have to like it

or lump it. What is much more significant, from the point of view of those of us who have been around the science fiction milieu since way back in the middle years of the outgoing century, is that very, very shortly we're going to be dating things with a "20—" instead of a "19—" and that sends real shivers down my back and the backs of a lot of other people who have been thinking about that great change-over for most of their lives.

I have here before me right now some of the science-fiction anthologies I bought and read (and re-read and re-read) when I was in my very early teens in the late 1940s, when the year 2000 was still more than fifty years away. I'm speaking of Groff Conklin's two mammoth collections, *The Best of Science Fiction* (1946) and *A Treasury of Science Fiction* (1948), and the epochal *Adventures in Time and Space* (1946), edited by Raymond J. Healy and J. Francis McComas. Nearly all the stories in those books, reprinted from science-fiction magazines of the 1930s and 1940s, took place in what was then the future, of course, and so the stories seemed like time machines to me, transporting me off to—

To 1975, say. That's when H. Beam Piper's elegant time-travel story, "Time and Time Again," takes place. It's about a man who is transported back thirty years by an atomic explosion and finds himself in the body of his own thirteen-year-old self. The story drops a few details about what 1975 is like—the siege of Buffalo in the third world war,

the transpolar air invasion of Canada, and so forth. That these things never happened is beside the point: indeed, Piper's suddenly young hero resolves to grow up to be president and *prevent* them from happening. (He plans to win in 1960, John F. Kennedy's year in our own time track, thus replacing a "good-natured nonentity" of an incumbent who allowed World War III to become inevitable.) The point is that the story, when I read it in 1949, was about the *future*—a future that is already a quarter of a century in our past.

Then there's Robert A. Heinlein's 1940 story, "Requiem," the one about Delos D. Harriman, the elderly tycoon who put together the financial consortium that launched the first expeditions to the Moon, and now, in extreme old age, yearns to go there himself. The story itself doesn't, in fact, tell us what year "Requiem" is taking place in. But early in his career Heinlein drew up a "future history" chart for his own storytelling reference, and the first published version of that chart, in the May 1941 issue of *Astounding*, sets 1978 as the date of the first rocket to the Moon, and 1980 for the founding of Luna City, the first settlement there. "Requiem" is pegged for 1990.

Heinlein was a little too conservative about the date of that first lunar landing—it happened in 1969—and it didn't occur to him or anyone else that our arrival on the Moon would not immediately be followed by the establishment of permanent bases there. Still, he came close enough. One thing he was certain of was that we would reach the Moon in the second half of the twentieth century, and even that seemed quite far in the future to him. He set his story of old Delos Harriman's journey to the moon in 1990 rather than 2000 because to Heinlein, writing

GARDNER DOZOIS  
Editor

SHEILA WILLIAMS  
Executive Editor

TREVOR QUACHRI  
Editorial Assistant

PAUL STEVENS  
Technical Assistant

ARIEN HOOGERWERF  
Editorial Assistant

VICTORIA GREEN  
Senior Art Director

SHIRLEY CHAN LEVI  
Assistant Art Director

CAROLE DIXON  
Production Manager

ABIGAIL BROWNING  
Manager Subsidiary Rights and Marketing

SCOTT LAIS  
Contracts & Permissions

JULIA McEVOY  
Manager, Advertising Sales

BRUCE W. SHERBOW  
Director of Newsstand Sales

SANDY MARLOWE  
Circulation Services

PETER KANTER  
Publisher

WARREN RIVERS  
Editorial Director

SUSAN KENDRIOSKI  
Executive Director, Art and Production

ISAAC ASIMOV  
Editorial Director  
(1977-1992)

ADVERTISING REPRESENTATIVE  
David Geller Publishers' Rep. (212) 682-1540

CLASSIFIED ADVERTISING  
Russell Johns Associates (800) 237-9851

Please do not send us your manuscript until you've gotten a copy of our manuscript guidelines. To obtain this, send us a self-addressed, stamped business-size envelope (what stationery stores call a number 10 envelope), and a note requesting this information. Please write "manuscript guidelines" in the bottom left-hand corner of the outside envelope. The address for this and for all editorial correspondence is *Asimov's Science Fiction*, 475 Park Avenue South, New York, NY 10016. While we're always looking for new writers, please, in the interest of time-saving, find out what we're looking for, and how to prepare it, before submitting your story.

[www.asimovs.com](http://www.asimovs.com)

his story back there in Franklin D. Roosevelt's second term in office, the year 2000 was a distant, barely imaginable realm of fantasy. As it was to me when I first read that story, and so many others, in the days of Harry Truman's presidency.

Here's "Time Locker," by Lewis Padgett (a pseudonym of the versatile Henry Kuttner), dating from 1943. It's set in 1970, by which time dollars have been replaced by "credits," telephones have video screens attached, and airborne commuters travel through Manhattan via the Hudson Floatway. The far future, again.

On and on, story after story, the future that never happened except in the pages of those old science-fiction anthologies—Lewis Padgett's "The Piper's Son," L. Sprague de Camp's "The Blue Giraffe," Heinlein's "The Roads Must Roll," Padgett's "The Twonky," C.L. Moore's "No Woman Born," Harry Walton's "Housing Shortage"—every one of them taking place in the late twentieth century, which seemed, at the time, quite far enough away to encompass all sorts of marvels and wonders. As for the magical year 2000, that lay *beyond* those tales, in an even more fantastic time to come.

What a picture of the glittering 1970s and 1980s I drew from them all when I was a boy—robots, androids, mutants, time machines and other four-dimensional gizmos, commuter helicopters. And the year 2000 was always the big one for me, the great boundary—the marker between my world and the unattainable future.

Just a few years later I started writing science fiction myself, and by 1957, when I took my own first crack at writing about the turn of the new millennium, I was a well-established professional. Here's what I had to say on the subject in a

little story called "New Year's Eve: 2000 A.D." from the September 1957 issue of the long-forgotten *Imaginative Tales*:

*"George Carhew glanced at his watch. The time was 11:21. He looked around at the rest of the guests at the party and said, 'Hey! Thirty-nine more minutes, and we enter the twenty-first century.'*

*"Abel Marsh squinted sourly at Carhew. 'How many times do I have to tell you, George, that the new century won't begin for another year? 2001 is the first year of the twenty-first century, not 2000. You'll have to wait till next year to celebrate that.'*

*"Don't be so dammed pica-yune," Carhew snapped. 'In half an hour it'll be the year 2000. Why shouldn't it be a new century?'*

*"Because—"*

*"Oh, don't fight over it, boys," cooed Maritta Lewis. . . ."*

And they don't. Maritta goes to the bar and dials up a Four Planets for Carhew and an old-fashioned Whiskey Sour for the stodgy Marsh, and the party goes merrily on, with chatter about the new hedonistic cult called Relativistic Release that's sweeping the country, and so on, and precisely at midnight "a bolt of light split the sky—a shaft of white flame that leaped up from the Earth and sprang through the heavens, lighting up the entire city and probably half the continent," because the first rocketship to the Moon has just taken off from White Sands Rocket Base and the Age of Space has begun, there on New Year's Eve, 1999. I was wrong by only about thirty years. But—hey, folks, it was just a story. And I had no delusions of being Heinlein.

I took a second look at the arrival

of the year 2000 in my 1974 novel, *The Stochastic Man*, and this time, I think, I came closer to Heinesque prophetic clarity. Times Square is full of drunken, half-naked revelers. ("An undercurrent of violence had been present all evening—smashing of windows, shooting out of streetlamps—but it picked up strength rapidly after ten: there were fistfights, some genial, some murderous, and at the corner of 57th and 5th there was a mob battle going on, a hundred men and women clubbing at each other in what looked like a random way. . . .") Sounds more like the America we've come to know and love, doesn't it? At the moment of midnight "the summits of office towers turned radiant with brilliant floodlights," but then a fire breaks out: "Flames were dancing high on a building to the west. . . . Such a lovely orange hue—we began to cheer and applaud. We are all Nero tonight, I thought, and was swept on southward. . . . Bells tolled.

More sirens. Chaos, chaos, chaos." Yes. Happy New Year, everybody.

I remember when I first calculated how old I'd be if I lived to see the year 2000. I was thirteen; there were fifty-odd years still to go. My father, that year, was a man in his forties; my maternal grandfather, born in nineteenth-century Poland, was sixty-four. By the time the year 2000 came around, I realized, *I would be older than my grandfather was right now*. It seemed unthinkable that I could ever get to be so old. (It seemed highly unlikely, too, for this was a period when most of us, not just science-fiction readers, expected World War III to break out at any moment and all of civilization to be consumed in atomic warfare.)

And yet—yet—

Here we are, right on the very threshold of the year 2000. It's been a long haul, but we're almost there. Gives me the shivers, it does.

See you in the future, pals—next month. O

# Chat online

## with your favorite authors!

**Dune: House Atreides**  
with Kevin J. Anderson

**November 23 @ 9:00 p.m. EST**

**Holiday Chat**

with Connie Willis and James Patrick Kelly

**December 14 @ 9:00 p.m. EST**

**Y2K Countdown**

with William Gibson

**December 28 @ 9:00 p.m. EST**

Go to [www.scifi.com/chat](http://www.scifi.com/chat) or link to the chats via our home page ([www.asimovs.com](http://www.asimovs.com)). Chats are held in conjunction with *Analog* and the Sci-fi Channel and are moderated by Asimov's editor, Gardner Dozois.

## Kristine Kathryn Rusch

The author's latest books include *The Black Queen* and *Oblivion* (which was written in collaboration with her husband Dean Wesley Smith). She is currently at work on the second book in her Black Throne series—*The Black King*. Ms. Rusch's recent novelette, "Echea" (Asimov's, July 1998), was a winner of our Thirteenth Annual Readers' Award and a finalist for the Nebula and Hugo awards. Two of her other 1998 short stories won Readers' Award polls in *Ellery Queen Mystery Magazine* and *SF Age*. Ms. Rusch's inspiration for her latest tale came from contests held nationwide last April for the first . . .

# MILLENNIUM BABIES

Illustration by Steve Cavallo



LICENSED TO UNZ.ORG  
ELECTRONIC REPRODUCTION PROHIBITED



Two weeks into the second semester, she got the message. It had been sent to her house system, and was coded to her real name, Brooke Delacroix, not Brooke Cross, the name she had used since she was eighteen. At first she didn't want to open it, thinking it might be another legal conundrum from her mother, so she let the house monitor in the kitchen blink while she prepared dinner.

She made a hearty dinner, and poured herself a glass of rosé before settling down in front of the living room fireplace. The fireplace was the reason she'd bought this house. She had fallen in love with the idea that she could sit on cold winter nights under a pile of blankets, a real fire burning nearby, and read the ancient paperbacks she found in Madison's antique stores. She read a lot of current work on her e-book, especially research for the classes she taught at the university, but she loved to read novels in their paper form, careful not to tear the brittle pages, feeling the weight of bound paper in her hands.

She had added bookshelves to the house's dining room for her paper novels, and she had made a few other improvements as well. But she tried to keep the house's character. It was a hundred and fifty years old, built when this part of Wisconsin had been nothing but family farms. The farmland was gone now, divided into five acre plots, but the privacy remained. She loved being out here, in the country, more than anything else. Even though the university provided her job, the house was her world.

The novel she held was a thin volume, and a favorite—*The Great Gatsby* by F. Scott Fitzgerald—but on this night, the book didn't hold her interest. Finally she gave up. If she didn't hear the damn message, she would be haunted by her mother all night.

Brooke left the glass of wine and the book on the end table, her blankets curled at the edge of the couch, and made her way back to the kitchen. She could have had House play an audio-only version of the message in the living room, but she wanted to see her mother's face, to know how serious it was this time.

The monitor was on the west wall beside the microwave. The previous owners—a charming elderly couple—had kept a small television in that spot. On nights like this, Brooke thought the monitor was no improvement.

She stood in front of it, arms crossed, sighed, and said, "House, play message."

The blinking icon disappeared from the screen. A digital voice she did not recognize said, "This message is keyed for Brooke Delacroix only. It will not be played without certification that no one else is in the room."

She stood. If this was from her mother, her tactics had changed. This sounded official. Brooke made sure she was visible to the built-in camera.

"I'm Brooke," she said, "and I'm alone."

"You're willing to certify this?" the strange voice asked her.

"Yes," she said.

"Stand by for message."

The screen turned black. She rubbed her hands together. Goosebumps were crawling across her skin. Who would send her an official message?

"This is coded for Brooke Delacroix," a new digital voice said. "Personal identification number . . ."

As the voice rattled off the number, she clenched her fist. Maybe something had happened to her mother. Brooke was, after all, the only next of kin.

"This is Brooke Delacroix," she said. "How many more security protocols do we have here?"

"Five," House said.

She felt her shoulders relax as she heard the familiar voice.

"Go around them. I don't have the time."

"All right," House said. "Stand by."

She was standing by. Now she wished she had brought her glass of wine into the kitchen. For the first time, she felt as if she needed it.

"Ms. Delacroix?" A male voice spoke, and as it did, the monitor filled with an image. A middle-aged man with dark hair and dark eyes stared at a point just beyond her. He had the look of an intellectual, an aesthetic, someone who spent too much time in artificial light. He also looked vaguely familiar. "Forgive my rudeness. I know you go by Cross now, but I wanted to make certain that you are the woman I'm searching for. I'm looking for Brook Delacroix, born 12:05 A.M., January first in the year 2000 in Detroit, Michigan."

Another safety protocol. What was this?

"That's me," Brooke said.

The screen blinked slightly, apparently as her answer was fed into some sort of program. He must have recorded various messages for various answers. She knew she wasn't speaking to him live.

"We are actually colleagues, Ms. Cross. I'm Eldon Franke . . ."

Of course. That was why he looked familiar. The Human Potential Guru who had gotten all the press. He was a legitimate scientist whose most recent tome became a pop culture bestseller. Franke rehashed the nature versus nurture arguments in personality development, mixed in some sociology and some well documented advice for improving the lot nature/nurture gave people, and somehow the book hit.

She had read it, and had been impressed with the interdisciplinary methods he had used—and the credit he had given to his colleagues.

" . . . have a new grant, quite a large one actually, which startled even me. With that and the proceeds from the last book, I'm able to undertake the kind of study I've always wanted to do."

She kept her hands folded and watched him. His eyes were bright, intense. She remembered seeing him at faculty parties, but she had never spoken to him. She didn't speak to many people voluntarily, especially during social occasions. She had learned, from her earliest days, the value of keeping to herself.

"I will be bringing in subjects from around the country," he was saying. "I had hoped to go around the world, but that makes this study too large even for me. As it is, I'll be working with over three hundred subjects from all over the United States. I didn't expect to find one in my own backyard."

A subject. She felt her breath catch in her throat. She had thought he was approaching her as an equal.

"I know from published reports that you dislike talking about your status as a Millennium Baby, but—"

"Off," she said to House. Franke's image froze on the screen.

"I'm sorry," House said. "This message is designed to be played in its entirety."

"So go around it," she said, "and shut the damn thing off."

"The message program is too sophisticated for my systems," House said.

Brooke cursed. The son of a bitch knew she'd try to shut him down. "How long is it?"

"You have heard a third of the message."

Brooke sighed. "All right. Continue."

The image became mobile again. "—I hope you hear me out. My work, as you may or may not know, is with human potential. I plan to build on my earlier research, but I lacked the right kind of study group. Many scientists of all stripes have studied generations, and assumed that because people were born in the same year, they had the same hopes, aspirations, and dreams. I do not believe that is so. The human creature is too diverse—"

"Get to the point," Brooke said, sitting on a wooden kitchen chair.

"—so in my quest for the right group, I stumbled on thirty-year-old articles about Millennium Babies, and I realized that the subset of your generation, born on January 1 of the year 2000, actually have similar beginnings."

"No, we don't," Brooke said.

"Thus you give me a chance to focus this study. I will use the raw data to continue my overall work, but this study will focus on what it is that makes human beings succeed or fail—"

"Screw you," Brooke said and walked out of the kitchen. Behind her, Franke's voice stopped.

"Do you want me to transfer audio to the living room?" House asked.

"No," Brooke said. "Let him ramble on. I'm done listening."

The fire crackled in the fireplace, her wine had warmed to room temperature, bringing out a different bouquet, and her blankets looked comfortable. She sank into them. Franke's voice droned on in the kitchen, and she ordered House to play Bach to cover him.

But her favorite Brandenburg Concerto couldn't wipe Franke's voice from her mind. Studying Millennium Babies. Brooke closed her eyes. She wondered what her mother would think of that.

Three days later, Brooke was in her office, trying to assemble her lecture for her new survey class. This one was on the two world wars. The University of Wisconsin still believed that a teacher should stand in front of students, even for the large lecture courses, instead of delivering canned lectures that could be downloaded. Most professors saw surveys as too much wasted work, but she actually enjoyed the courses. She liked standing before a large room delivering a lecture.

But now she was getting past the introductory remarks and into the areas she wasn't that familiar with. She didn't believe in regurgitating the textbooks, so she was boning up on World War I. She had forgotten that its causes were so complex; its results so far reaching, especially in Europe. Sometimes she just found herself reading, lost in the past.

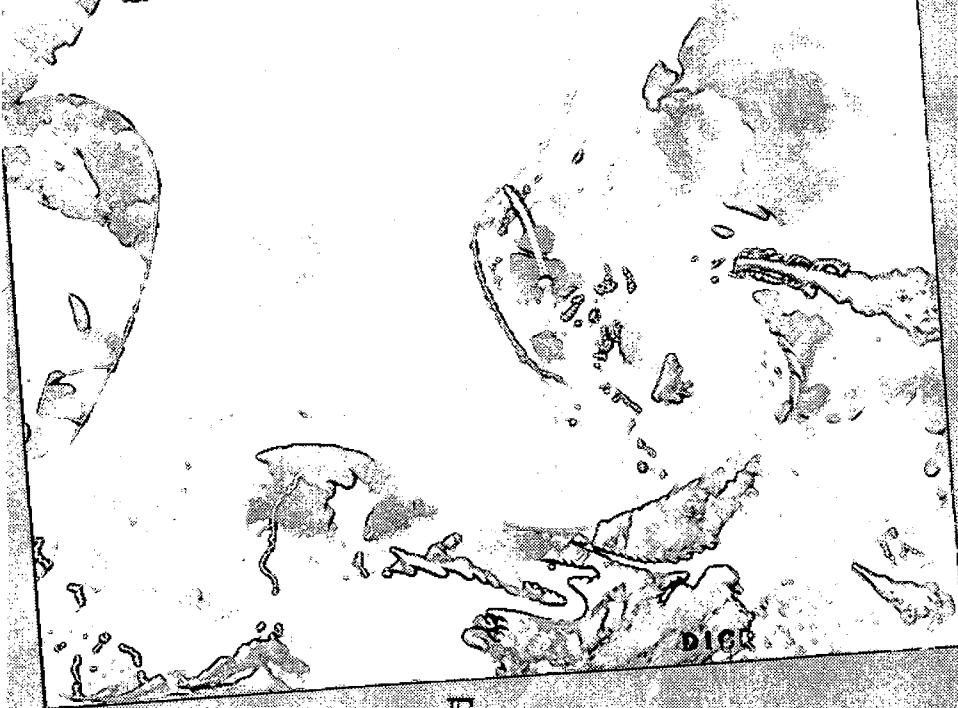
Her office was small and narrow, with barely enough room for her desk. Because she was new, she was assigned to Bascom Hall at the top of Bascom Hill, a building that had been around for most of the university's history. The Hall's historic walls didn't accommodate new technology, so the university made certain she had a fancy desk with a built-in screen. The problem with that was that when she did extensive research, as she was doing now, she had to look down. She often downloaded information to her palmtop or worked at home. Working in her office, in the thin light provided by the ancient fluorescents and the dirty meshed window, gave her a headache.

But she was nearly done. Tomorrow, she would take the students from

A state-of-the-art showcase of the  
very best in fantasy and  
science fiction art

The Best Fantasy and Science Fiction Artists Show How They Work

# Fantasy Art



From the lyrical Tolkien landscapes of John Howe and Alan Lee to the eerily beautiful computer-manipulated art of Steve Stone and Fred Gambino and the extraordinary sci-fi images of Jim Burns, the biggest and brightest talents in fantasy, horror, and science fiction reveal their inspiration, frustrations, and joys, and how they bring their ideas to fruition.

150 color, 75 b&w illus. 10½ x 10¼" \$24.95, paperback

Wherever books are sold, or call 1-800-278-8477

A Selection of the Science Fiction Book Club



**Watson-Guption Publications**

LICENSED TO UNZ.ORG  
ELECTRONIC REPRODUCTION PROHIBITED

the horrors of trench warfare to the first steps toward US involvement. The bulk of the lecture, though, would focus on isolationism—a potent force in both world wars.

A knock on her door brought her to the twenty-first century. She rubbed the bridge of her nose impatiently. She wasn't holding office hours. She hated it when students failed to read the signs.

"Yes?" she asked.

"Professor Cross?"

"Yes?"

"May I have a moment of your time?"

The voice was male and didn't sound terribly young, but many of her students were older.

"A moment," she said, using her desktop to unlock the door. "I'm not having office hours."

The knob turned and a man came inside. He wasn't very tall, and he was thin—a runner's build. It wasn't until he turned toward her, though, that she let out a groan.

"Professor Franke."

He held up a hand. "I'm sorry to disturb you—"

"You should be," she said. "I purposely didn't answer your message."

"I figured. Please. Just give me a few moments."

She shook her head. "I'm not interested in being the subject of any study. I don't have time."

"Is it the time? Or is it the fact that the study has to do with Millennium Babies?" His look was sharp.

"Both."

"I can promise you that you'll be well compensated. And if you'll just listen to me for a moment, you might reconsider—"

"Professor Franke," she said, "I'm not interested."

"But you're a key to the study."

"Why?" she asked. "Because of my mother's lawsuits?"

"Yes," he said.

She felt the air leave her body. She had to remind herself to breathe. The feeling was familiar. It had always been familiar. Whenever anyone talked about Millennium Babies, she had this feeling in her stomach.

Millennium Babies. No one had expected the craze, but it had become apparent by March of 1999. Prospective parents were timing the conception of their children as part of a race to see if their child could be the first born in 2000—the New Millennium, as the pundits of the day inaccurately called it. There was a more-or-less informal international contest, but in the United States, the competition was quite heavy. There were other races in every developed country, and in every city. And in most of those places, the winning parent got a lot of money, and a lot of products, and some, those with the cutest babies, or the pushiest parents, got endorsements as well.

"Oh, goodie," Brooke said, filling her voice with all the sarcasm she could muster. "My mother was upset that I didn't get exploited enough as a child so you're here to fill the gap."

His back straightened. "It's not like that."

"Really? How is it then?" She regretted the words the moment she spoke them. She was giving Franke the opening he wanted.

"We've chosen our candidates with care," he said. "We are not taking babies born randomly on January 1 of 2000. We're taking children whose

birth was planned, whose parents made public statements about the birth, and whose parents hoped to get a piece of the pie."

"Wonderful," she said. "You're studying children with dysfunctional families."

"Are we?" he asked.

"Well, if you study me, you are," she said and stood. "Now, I'd like it if you'd leave."

"You haven't let me finish."

"Why should I?"

"Because this study might help you, Professor Cross."

"I'm doing fine without your help."

"But you never talk about your Millennium Baby status."

"And how often do you discuss the day you were born, Professor?"

"My birthday is rather unremarkable," he said. "Unlike yours."

She crossed her arms. "Get out."

"Remember that I study human potential," he said. "And you all have the same beginnings. All of you come from parents who had the same goal—parents who were driven to achieve something unusual."

"Parents who were greedy," she said.

"Some of them," he said. "And some of them planned to have children anyway, and thought it might be fun to try to join the contest."

"I don't see how our beginnings are relevant."

He smiled, and she cursed under her breath. As long as she talked to him, as long as she asked thinly veiled questions, he had her and they both knew it.

"In the past forty years, studies of identical twins raised apart have shown that at least 50 percent of a person's disposition is apparent at birth. Which means that no matter how you're raised, if you were a happy baby, you have a greater than 50 percent chance of being a happy adult. The remaining factors are probably environmental. Are you familiar with DNA mapping?"

"You're not answering my question," she said.

"I'm trying to," he said. "Listen to me for a few moments, and then kick me out of your office."

She wouldn't get rid of him otherwise. She slowly sat in her chair.

"Are you familiar with DNA mapping?" he repeated.

"A little," she said.

"Good." He leaned back in his chair and templed his fingers. "We haven't located a happiness gene or an unhappiness gene. We're not sure what it is about the physical make-up that makes these things work. But we do know that it has something to do with serotonin levels."

"Get to the part about Millennium Babies," she said.

He smiled. "I am. My last book was partly based on the happiness/unhappiness model, but I believe that's too simplistic. Human beings are complex creatures. And as I grow older, I see a lot of lost potential. Some of us were raised to fail, and some were raised to succeed. Some of those raised to succeed have failed, and some who were raised to fail have succeeded. So clearly it isn't all environment."

"Unless some were reacting against their environment," she said, hearing the sullenness in her tone, a sullenness she hadn't used since she'd last spoken to her mother five years before.

"That's one option," he said, sounding brighter. He must have taken her

statement for interest. "But one of the things I learned while working on human potential is that drive is like happiness. Some children are born driven. They walk sooner than others. They learn faster. They adapt faster. They achieve more, from the moment they take their first breath."

"I don't really believe that our entire personalities are formed at birth," she said. "Or that our destinies are written before we're conceived."

"None of us do," he said. "If we did, we wouldn't have a reason to get out of bed in the morning. But we do acknowledge that we're all given traits and talents that are different from each other. Some of us have blue eyes. Some of us can hit golf balls with a power and accuracy that others only dream of. Some of us have perfect pitch, right?"

"Of course," she snapped.

"So it only stands to reason that some of us are born with more happiness than others, and some are born with more drive than others. If you consider those intangibles to be as real as, say, musical talent."

His argument had a certain logic, but she didn't want to agree with him on anything. She wanted him out of her office.

"But," he said. "Those with the most musical talent aren't always the ones on stage at Carnegie Hall. There are other factors, environmental factors. A child who grows up without hearing music might never know how to make music, right?"

"I don't know," she said.

"Likewise," he said, "if that musically inclined child had parents to whom music was important, the child might hear music all the time. From the moment that child is born, that child is familiar with music and has an edge on the child who hasn't heard a note."

She started tapping her fingers.

He glanced at them and leaned forward. "As I said in my message, this study focuses on success and failure. To my knowledge, there has never before been a group of children conceived nationwide with the same specific goal in mind."

Her mouth was dry. Her fingers had stopped moving.

"You Millennium Babies share several traits in common. Your parents conceived you at the same time. Your parents had similar goals and desires for you. You came out of the womb and instantly you were branded a success or a failure, at least for this one goal."

"So," she said, keeping her voice cold. "Are you going to deal with all those children who were abandoned by their parents when they discovered they didn't win?"

"Yes," he said.

The quiet sureness of his response startled her. He spread his hands as if in explanation. "Their parents gave up on them," he said. "Right from the start. Those babies are perhaps the purest subjects of the study. They were clearly conceived only with the race in mind."

"And you want me because I'm the most spectacular failure of the group." Her voice was cold, even though she had to clasp her hands together to keep them from trembling.

"I don't consider you a failure, Professor Cross," he said. "You're well respected in your profession. You're on a tenure track at a prestigious university—"

"I meant as a Millennium Baby. I'm the public failure. When people think of baby contests, the winners never come to mind. I do."

He sighed. "That's part of it. Part of it is your mother's attitude. In some ways, she's the most obsessed parent, at least that we can point to."

Brooke winced.

"I'd like to have you in this study," he said. "The winners will be. It would be nice to have you represented as well."

"So that you can get rich off this book, and I'll be disgraced yet again," she said.

"Maybe," he said. "Or maybe you'll get validated."

Her shoulders were so tight that it hurt to move her head. "Validated." Such a nice psychiatrist's word. Making me feel better will salve your conscience while you get rich."

"You seem obsessed with money," he said.

"Shouldn't I be?" she asked. "With my mother?"

He stared at her for a long moment.

Finally, she shook her head. "It's not the money. I just don't want to be exploited any more. For any reason."

He nodded. Then he folded his hands across his stomach and squinched up his face, as if he were thinking. Finally, he said, "Look, here's how it is. I'm a scientist. You're a member of a group that interests me and will be useful in my research. If I were researching thirty-year-old history professors who happened to be on a tenure track, I'd probably interview you as well. Or professional women who lived in Wisconsin. Or—"

"Would you?" she asked. "Would you come to me, really?"

He nodded. "It's policy to check who's available for study at the university before going outside of it."

She sighed. He had a point. "A book on Millennium Babies will sell well. They all do. And you'll get interviews, and you'll become famous."

"The study uses Millennium Babies," he said, "but anything I publish will be about success and failure, not a pop psychology book about people born on January first."

"You can swear to that?" she asked.

"I'll do it in our agreement," he said.

She closed her eyes. She couldn't believe he was talking her into this.

Apparently he didn't think he had, for he continued. "You'll be compensated for your time and your travel expenses. We can't promise a lot, but we do promise that we won't abuse your assistance."

She opened her eyes. That intensity was back in his face. It didn't unnerve her. In fact, it reassured her. She would rather have him passionate about the study than anything else.

"All right," she said. "What do I have to do?"

First she signed waivers. She had all of them checked out by her lawyer—the fact that she even had a lawyer was yet another legacy from her mother—and he said that they were fine, even liberal. Then he tried to talk her out of the study, worried more as a friend, he said, even though he had never been her friend before.

"You've been trying to get away from all of this. Now you're opening it back up. That can't be good for you."

But she wasn't sure what was good for her any more. She had tried not thinking about it. Maybe focusing on herself, on what happened to her from the moment she was born, was better.

She didn't know, and she didn't ask. The final agreement she signed was

personalized—it guaranteed her access to her file, a copy of the completed study, and promised that any study her information was used in would concern success and failure only, and would not be marketed as a Millennium Baby product. Her lawyer asked for a few changes, but very few, considering how opposed he was to this project. She was content with the concessions Professor Franke made for her, including the one which allowed her to leave after the first two months.

But the first two months were grueling, in their own way. She had to carve time out of an already full schedule for a complete physical, which included DNA sampling. This had been a major sticking point for her lawyer—that her DNA and her genetic history would not be made available to anyone else—and he had actually gotten Franke to sign forms that attested to that fact. The sampling, for all its trouble, was relatively painless. A few strands of hair, some skin scrapings, and two vials of blood, and she was done.

The psychological exams took the longest. Most of them required the presence of the psychiatric research member of the team, a dour woman who barely spoke to Brooke when she came in. The woman watched while Brooke used a computer to take tests: a Rorschach, a Minnesota Multiphasic Personality Interview, a Thematic Apperception Test, and a dozen others whose names she just as quickly forgot. One of them was a standard IQ test. Another a specialized test designed by Franke's team for his previous experiment. All of them felt like games to Brooke, and all of them took over an hour each to complete.

Her most frustrating time, though, was with the sociologist, a well-meaning man named Meyer. He wanted to correlate her experiences with the experiences of others, and put them in the context of the society at the time. He'd ask questions, though, and she'd correct them—feeling that his knowledge of modern history was poor. Finally she complained to Franke, who smiled, and told her that her perceptions and the researchers' didn't have to match. What was important to them wasn't what was true for the society, but what was true for *her*. She wanted to argue, but it wasn't her study, and she decided she was placing too much energy into all of it.

Through it all, she had weekly appointments with a psychologist who asked her questions she didn't want to think about. *How has being a Millennium Baby influenced your outlook on life? What's your first memory? What do you think of your mother?*

Brooke couldn't answer the first. The second question was easy. Her first memory was of television lights blinding her, creating prisms, and her chubby baby fingers reaching for them, only to be caught and held by her mother's cold hand.

Brooke declined to answer the third question, but the psychologist asked it at every single meeting. And after every single meeting, Brooke went home and cried.

She gave a mid-term exam in her World Wars class, the first time she had ever done so in a survey class. But she decided to see how effective she was being, since her concentration was more on her own past than the one she was supposed to be teaching.

Her graduate assistants complained about it, especially when they looked at the exam itself. Her assistants had tried to talk her into a simple true/false/multiple choice exam, and she had glared at them. "I don't want

to give a test that can be graded by computer," she said. "I want to see a handwritten exam, and I want to know what these kids have learned." And because she wanted to know that—not because of her assistants' complaints (as she made very clear)—she took twenty of the exams to grade herself.

But before she started, she had a meeting in Franke's office. He had called her.

Franke's office was in a part of the campus she didn't get to very often. A winding road took her past Washburn Observatory on a bluff overlooking Lake Mendota, and into a grove of young trees. The parking area was large and filled with small electric and energy efficient cars. She walked up the brick sidewalk. Unlike the sidewalks around the rest of the city, this one didn't have the melting piles of dirty snow that were reminders of the long hard winter. Instead, tulips and irises poked out of the brown dirt lining the walk.

The building was an old Victorian style house, rather large for its day. The only visible signs of a remodel (besides the pristine condition of the paint and roof) were the security system outside, and the heatpump near the driveway.

Clearly this was a faculty-only building; no classes were held here. She turned the authentic glass door knob and stepped into a narrow foyer. A small electronic screen floated in the center of the room. The screen moved toward her.

"I'm here to see Dr. Franke," she said.

"Second floor," the digital voice responded. "He is expecting you."

She sighed softly and mounted the stairs. With the exception of the electronics, everything in the hall reflected the period. Even the stairs weren't covered in carpet, but instead in an old-fashioned runner, tacked on the sides, with a long gold carpet holder pushed against the back of each step.

The stairs ended in a long narrow hallway, illuminated by electric lights done up to resemble gaslights. Only one door stood open. She knocked on it, then, without waiting for an invitation, went in.

The office wasn't like hers. This office was a suite, with a main area and a private room to the side. A leather couch was pushed against the window, and two matching leather chairs flanked it. Teak tables provided the accents, with round gold table lamps the only flourish.

Professor Franke stood in the door to the private area. He looked at her examining his office.

"Impressive," she said.

He shrugged. "The university likes researchers, especially those who add to its prestige."

She knew that. She had published her thesis, and it had received some acclaim in academic circles, which was why she was as far ahead as she was. But very few historians became famous for their research. She doubted she would ever achieve this sort of success.

"Would you like a seat?" Franke asked.

She sat on one of the leather chairs. It was soft, and molded around her. "I didn't think you'd need to interview every subject to see if they wanted to continue," she said.

"Every subject isn't you." He sat across from her. His hair was slightly mussed, as if he had been running his fingers through it, and he had a coffee stain above the breastpocket of his white shirt. "We had agreements."

She nodded.

"I will tell you some of what we have learned," he said. "It's preliminary, of course."

"Of course." She sounded calmer than she felt. Her heart was pounding.

"We've found three interesting things. The first is that all Millennium Babies in this study walked earlier than the norm, and spoke earlier as well. Since most were firstborns, this is unusual. Firstborns usually speak *later* than the norm because their every need is catered to. They don't need to speak right away, and when they do, they usually speak in full sentences."

"Meaning?"

"I hesitate to say for certain, but it might be indicative of great drive. Stemming, I believe, from the fact that the parents were driven." His eyes were sparkling. His enthusiasm for his work was catching. She found herself leaning forward like a student in her favorite class. "We're also finding genetic markers in the very areas we were looking for. And some interesting biochemical indications that may help us isolate the biological aspect of this."

"You're moving fast," she said.

He nodded. "That's what's nice about having a good team."

And a lot of subjects, she thought. Not to mention building on earlier research.

"We've also found that there is direct correlation between a child's winning or losing the millennium race and her perception of herself as a success or failure, independent of external evidence."

Her mouth was dry. "Meaning?"

"No matter how successful they are, the majority of Millennium Babies—at least the ones we chose for this study, the ones whose parents conceived them only as part of the race—perceive themselves as failures."

"Including me," she said.

He nodded. The movement was slight, and it was gentle.

"Why?" she asked.

"That's the thing we can only speculate at. At least at this moment." He wasn't telling her everything. But then, the study wasn't done. He tilted his head slightly. "Are you willing to go to phase two of the study?"

"If I say no, will you tell me what else you've discovered?" she asked.

"That's our agreement." He paused and then added, "I would really like it if you continued."

Brooke smiled. "That much is obvious."

He smiled too, and then looked down. "This last part is nothing like the first. You won't have test after test. It's only going to last for a few days. Can you do that?"

Some of the tension left her shoulders. She could do a few days. But that was it. "All right," she said.

"Good." He smiled at her, and she braced herself. There was more. "I'll put you down for the next segment. It doesn't start until Memorial Day. I have to ask you to stay in town, and set aside that weekend."

She had no plans. She usually stayed in town on Memorial Day weekend. Madison emptied out, the students going home, and the city became a small town—one she dearly loved.

She nodded.

He waited a moment, his gaze darting downward, and then meeting hers again. "There's one more thing."

This was why he had called her here. This was why she needed to see him in person.

"I was wondering if your mother ever told you who your father is. It would help our study if we knew something about both parents."

Brooke threaded her hands together, willing herself to remain calm. This had been a sensitive issue her entire life. "No," she said. "My mother has no idea who my father is. She went to a sperm bank."

Franke frowned. "I just figured, since your mother seemed so meticulous about everything else, she would have researched your father as well."

"She did," Brooke said. "He was a physicist, very well known, apparently. It was one of those sperm banks that specialized in famous or successful people. And my mother did check that out."

*Your father must not have been as wonderful as they said he was. Look at you. It had to come from somewhere.*

"Do you know the name of the bank?"

"No."

Franke sighed. "I guess we have all that we can, then."

She hated the disapproval in his tone. "Surely others in this study only have one parent."

"Yes," he said. "There's a subset of you. I was just hoping—"

"Anything to make the study complete," she said sarcastically.

"Not anything," he said. "You can trust me on that."

Brooke didn't hear from Professor Franke again for nearly a month, and then only in the form of a message, delivered to House, giving her the exact times, dates, and places of the Memorial Day meetings. She forgot about the study except when she saw it on her calendar.

The semester was winding down. The mid-term in her World Wars class showed her two things: that she had an affinity for the topic that she was sharing with the students; and that at least two of her graduate assistants had a strong aversion to work. She lectured both assistants, spoke to the chair of the department about teaching the survey class next semester, and continued on with the lectures, focusing on them as if she were the graduate student instead of the professor.

By late April, she had her final exam written—a long cumbersome thing, a mixture of true/false/multiple choice for the assistants, and two essay questions for her. She was thinking of a paper herself—one on the way those wars still echoed through the generations—and she was trying to decide if she wanted the summer to work on it or to teach as she usually did.

The last Saturday in April was unusually balmy, in the seventies without much humidity, promising a beautiful summer ahead. The lilac bush near her kitchen window had bloomed. The birds had returned, and her azaleas were blossoming as well. She was in the garage, digging for a lawn chair that she was convinced she still had, when she heard the hum of an electric car.

She came out of the garage, dusty and streaked with grime. A green car pulled into her driveway, next to the ancient pick-up she used for hauling.

Something warned her right from the start. A glimpse, perhaps, or a movement. Her stomach flipped over, and she had to swallow sudden nausea. She had left her personal phone inside—it was too nice to be connected to the world today—and she had never gotten the garage hooked into House's computer because she hadn't seen the need for the expense.

Still, as the car shuddered to a stop, she glanced at the screen door, won-

dering if she could make it in time. But the car's door was already opening, and in this kind of stand-off, fake courage was better than obvious panic.

Her mother stepped out. She was a slender woman. She wore blue jeans and a pale peach summer sweater that accented her silver and gold hair. The hair was new and had the look of permanence. Apparently her mother had finally decided to settle on a color. She wore gold bangles, and a matching necklace, but her ears were bare.

"I have a restraining order against you," Brooke said, struggling to keep her voice level. "You are not supposed to be here."

"I'm not the one who broke the order." Her mother's voice was smooth and seductive. Her courtroom voice. She had won a lot of cases with that melodious warmth. It didn't seem too strident. It just seemed sure.

"I sure as hell didn't want contact with you," Brooke said.

"No? Is that why your university contacted me?"

Brooke's heart was pounding so hard she wondered if her mother could hear it. "Who contacted you?"

"A Professor Franke, for some study. Something to do with DNA samples. I was to send them through my doctor, but you know I wouldn't do such a thing with anything that delicate."

Son of a bitch. Brooke hadn't known they were going to try something like that. She didn't remember any mention of it, nothing in the forms.

"I have nothing to do with that," Brooke said.

"It seems you're in some study. That seems like involvement to me," her mother said.

"Not the kind that gets you around a restraining order. Now get the hell off my property."

"Brooke, honey," her mother said, taking a step toward her. "I think you and I should discuss this—"

"There's nothing to discuss," Brooke said. "I want you to stay away from me."

"That's silly." Her mother took another step forward. "We should be able to settle this, Brooke. Like adults. I'm your mother—"

"That's not my fault," Brooke snapped. She glanced at the screen door again.

"A restraining order is for people who threaten your life. I've never hurt you, Brooke."

"There's judge in Dane County who disagrees, Mother."

"Because you were so hysterical," her mother said. "We've had a good run of it, you and I."

Brooke felt the color drain from her face. "How's that, Mother? The family that sues together stays together?"

"Brooke, we have been denied what's rightfully ours. We—"

"It never said in any of those contests that a child had to be born by natural means. You misunderstood, Mother. Or you tried to be even more perfect than anyone else. So what if I'm the first vaginal birth of the new millennium. So what? It was thirty years ago. Let it go."

"The first baby received enough in endorsements to pay for a college education and to have a trust fund—"

"And you've racked up enough in legal fees that you could have done the same." Brooke rubbed her hands over her arms. The day had grown colder.

"No, honey," her mother said in that patronizing tone that Brooke hated. "I handled my own case. There were no fees."

It was like arguing with a wall. "I have made it really, really clear that I never wanted to see you again," Brooke said. "So why do you keep hounding me? You don't even like me."

"Of course I like you, Brooke. You're my daughter."

"I don't like you," Brooke said.

"We're flesh and blood," her mother said softly. "We owe it to each other to be there for each other."

"Maybe you should have remembered that when I was growing up. I was a child, Mother, not a trophy. You saw me as a means to an end, an end you now think you got cheated out of. Sometimes you blame me for that—I was too big, I didn't come out fast enough, I was breach—and sometimes you blame the contest people for not discounting all those 'artificial methods' of birth, but you never, ever blame yourself. For anything."

"Brooke," her mother said, and took another step forward.

Brooke held up her hand. "Did you ever think, Mother, that it's your fault we missed the brass ring? Maybe you should have pushed harder. Maybe you should have had a c-section. Or maybe you shouldn't have gotten pregnant at all."

"Brooke!"

"You weren't fit to be a parent. That's what the judge decided on. You're right. You never hit me. You didn't have to. You told me how worthless I was from the moment I could hear. All that anger you felt about losing you directed at me. Because, until I was born, you never lost anything."

Her mother shook her head slightly. "I never meant that. When I would say that, I meant—"

"See? You're so good at taking credit for anything that goes well, and so bad at taking it when something doesn't."

"I still don't see why you're so angry at me," her mother said.

This time, it was Brooke's turn to take a step forward. "You don't? You don't remember that last official letter? The one cited in my restraining order?"

"You have never understood the difference between a legal argument and the real issues."

"Apparently the judge is just as stupid about legal arguments as I am, Mother." Brooke was shaking. "He believed it when you said that I was brought into this world simply to win that contest, and by rights, the state should be responsible for my care, not you."

"It was a law suit, Brooke. I had an argument to make."

"Maybe you can justify it that way, but I can't. I know the truth when I hear it. And so does the rest of the world." Brooke swallowed. Her throat was so tight it hurt. "Now get out of here."

"Brooke, I—"

"I mean it, Mother. Or I will call the police."

"Do you want me at least to do the DNA work?"

"I don't give a damn what you do, so long as I never see you again."

Her mother sighed. "Other children forgive their parents for mistakes they made in raising them."

"Was your attitude a mistake, Mother? Have you reformed? Or do you still have law suits out there? Are you still trying to collect on a thirty-year-old dream?"

Her mother shook her head and went back to the car. Brooke knew that posture. It meant that Brooke was being unreasonable. Brooke was impossible to argue with. Brooke was the burden.

"Some day," her mother said, "you'll regret how you treated me."

"Why?" Brooke asked. "You don't seem to regret how you treated me."

"Oh, I regret it, Brooke. If I had known it would have made you so bitter toward me, I never would have talked to you about our problems. I would have handled them alone."

Brooke clenched a fist and then unclenched it. She made herself take a deep breath and, instead of pointing out to her mother that she had done it again—she had blamed Brooke—Brooke said, "I'm calling the police now," and started toward the house.

"There's no need," her mother said. "I'm going. I'm just sorry—"

And the rest of her words got lost in the bang of the screen door.

An hour later, Brooke found herself outside Professor Franke's office. She ignored the small electronic screen that floated ahead of her, bleating that she didn't have an appointment and she wasn't welcome in the building. It was a dumb little machine; when she had asked if Professor Franke was in, it had told her he was. A good human secretary would have lied.

Apparently the system had already contacted Franke, for he stood in his door, waiting for her, a smile on his face even though his eyes were wary.

"Everything all right, Professor Cross?"

"I never gave you permission to contact my mother," she said as she came up the stairs.

"Your mother?"

"She came to my house today, claiming I'd nullified my restraining order by contacting her. She said you asked her for DNA samples."

"Come into my office," he said.

Brooke walked past him and heard him close the door. "We did contact her, as we did all the parents, for DNA samples. We were explicit in expressing our needs as part of the study, and that they had every right to refuse if they wanted. In no way did we ask her to come here or tell her that you asked us to contact her."

"She says it came from me and she knew I was involved in the study."

"Of course," he said. "One of the waivers you signed gave us permission to examine your genetic heritage. That includes parents, grandparents, living relatives if necessary. Your attorney didn't object."

Her attorney was good, but not that good. He probably hadn't known what that all entailed.

"I want you to send a letter, through your attorney or the university's counsel, stating that I in no way asked you to contact her and that you did it of your own volition."

"Do you want me to apologize?" he asked.

"To me or to her?" she asked.

He drew in his breath sharply and she realized for the first time that she had knocked him off balance.

"I meant to her," he said, "but I guess I owe you an apology too."

Brooke stared at him for a moment. No one had said that to her before.

"Look," he said, apparently not understanding her silence. "I should have thought it through when your mother said she didn't allow such confidential information to be sent to people she didn't know. I thought that was a refusal."

"For anyone else it would have been," Brooke said. "But not for my mother."

"She's an interesting woman."

"From the outside," Brooke said.

He nodded as if he understood. "For the record, I didn't mean to cause you trouble. I'm sorry I didn't warn you."

"It's all right," Brooke said. "Just don't let it happen again."

Except for receiving a copy of the official letter Franke sent to her mother, Brooke didn't think about the study again until Memorial Day weekend. The semester was over. Most of her students successfully answered the question on her World Wars final: *Explain the influence World War I had on World War II.*

One student actually called World War I the mother of World War II. The phrase stopped Brooke as she read, made her shudder, and hoped that not every monstrous mother begot an even more monstrous child.

Professor Franke sent instructions for Memorial Day weekend with the official letter. He asked her to set aside time from mid-afternoon on Friday to late evening on Monday. She was to report to TheaterPlace, a restaurant and bar on the west side of town.

She'd been to the restaurant before. It was a novelty spot in what had once been a four-plex movie palace. The restaurant was in the very center, with huge meeting rooms off to the sides. The builders had called it a gathering place for organizations too small to hold conventions. Still, it had everything—the large restaurant, the bar, places for presentations, places for seminars, places for quiet get-togethers. There were three smaller restaurants in what had once been the projection booths—restaurants that barely seated twenty. One of the larger rooms even showed live theater once a month.

Cars were no longer allowed in this part of town, thanks to a Green referendum three years before. Someone had tried to make exception for electric vehicles but that hadn't worked either, as the traffic cops said it would be too hard to patrol. Instead, the light rail made several stops, and some enterprising entrepreneur had built underground tunnels to connect all of the buildings. Many people Brooke knew preferred to shop here in the winter; it kept them out of the freezing cold. But she found the necessity of taking the light rail annoying. She would have preferred her own car so that she could leave on her own schedule.

She walked from the light rail stop near the refurbished mall to TheaterPlace. On the outside, it still looked like a four-plex: the raised roof, the warehouse shape. Only up close did it become apparent that TheaterPlace had been completely gutted and remodeled, right down to the smoked glass that had replaced the clear windows.

A sign on the main entrance notified her that TheaterPlace was closed for a private party. She touched the door anyway—knowing the party was theirs—and a scanner instantly identified her.

*Welcome, Brooke Cross. You may enter.*

She shuddered slightly, knowing that Franke had programmed the scanner to recognize either her fingerprints on the backside of the door or her DNA. She felt like her mother, worried that Franke had too much information.

The door clicked open and she let herself inside. A short dark-haired woman she had never seen before hurried to her side.

"Professor Cross," the woman said. "Welcome."

"Thanks," Brooke said.

"Just a few rules before we get started," the woman said. "This is the last time we'll be using names today. We ask you not to tell anyone who you are by name, although you may tell them anything else you wish about yourself. Please identify yourself using this number only."

She handed Brooke a stick-on badge with the number 333 printed in bold black numbers.

"Then what?" Brooke asked.

"Wait for Professor Franke to make his announcement. You're in the Indiana Jones Room, by the way."

"Thanks," Brooke said. She stuck the label to her white blouse and made her way down the hall. All of the rooms were named after characters from famous movies, and the décor in all of them except the restaurants was the same: movie posters on the wall, soft golden lighting, and a thin light blue carpet. The furniture moved according to the function. She had been in the Jones Room before for a faculty party honoring some distinguished professor from Beijing, but she doubted the room would be the same.

The double doors were open and inside, she heard the sound of soft conversation. She stopped just outside the door and surveyed the room.

The lights were up—not soft and golden at all—but full daylight, so that everyone's faces were visible. The Jones Room was one of the largest—the only theater, apparently, whose dimensions had been left intact. It seemed about half full.

There were tables lining the wall, with various kinds of foods and beverages, small plates to hold everything, and silverware glimmering in the brightness. People stood in various clusters. There were no chairs, no furniture groupings, and Brooke knew that was on purpose. Small floating serving trays hovered near each group. Whenever someone set an empty glass on one, the tray would float through an opening in the wall, and another tray would take its place.

Something about the groupings made her nervous, and it wasn't the lack of chairs or the fact that she didn't know anyone. She stared for a moment, trying to figure out what had caught her.

No one looked the same; they were fat and thin, tall and short. They had long hair and beards, no hair, and dyed hair. They were white, black, Asian and Hispanic or they were multiracial, with no features that marked them as part of any particular ethnic group. They were incredibly diverse—but none of them were elderly or underage. None of them had wrinkles, except for a few laugh lines, and none of them seemed younger than twenty.

They were about the same age. She would guess they *were* the same age—the exact same age as she was. It was a gathering of Franke's subjects for this study: all of them born January 1, 2000. All of them thirty years and 147 days old.

She shuddered. No wonder Franke was worried about this second half of the study. Most studies of this nature didn't allow the participants to get to know each other. She wondered what discipline he was dabbling in now, what sort of results he was expecting.

A man stopped beside her just outside the door. He was wearing a denim shirt, a bolo tie, and tight blue jeans. His long blond hair—naturally sun-streaked—brushed against his collar. He had a tan—something she had rarely seen in her lifetime—and it made his skin a burnished gold. He had letters on his name badge: DKGHY.

"Hi," he said. His voice was deep, with a Southern twang. "I guess we just go in, huh?"

"I've been steeling myself for it," she said.

He smiled. "Feels like they took away my armor when they took my name. I'm not sure if I'm supposed to say, 'Hi. I'm DKG—whatever-the-hell the rest of those letters are.' Or if I'm not supposed to say anything at all."

"Well, I don't want to be called 333."

"Can't say as I blame you." He grinned. "How about I call you Tre, and you can call me—oh, hell, I don't know—"

"De," she said. "I'll call you De."

"Nice to meet you, Tre," he said, holding out his hand.

She took it. His fingers were warm. "Nice to meet you, De."

"Where do you hail from?"

"Right here," she said.

"You're kiddin'? No travel expenses, huh?"

"And no hotel rooms."

He grinned. "Sometimes hotel rooms can be nice, especially when you don't get to see the inside of them very often."

"I suppose." She smiled at him. He was making this easier than she expected. "Where're you from?"

"Originally Galveston. But I've been in L'siana a long time now."

"New Orleans?"

"Just outside."

"Some city you got there."

"Yeah, but we ain't got a place like this." He looked around. "Want to go in?"

"Now I do," she said.

They walked side by side as if they were a couple who had been together most of their lives. Neither of them looked at the food, although he snatched two bottles of sparkling water off one of the tables, and handed one to her. She opened it, glad to have something to carry.

A few more people came in the doors. She and De went farther into the room. Bits of conversation floated by her:

"... never really got over it ..."

"... worked for the past five years as a dental hygienist ..."

"... my father wanted to take us out of the country, but ..."

Then there was a slight bonging sound, and the conversation halted. Franke stood in the very front of the room, where the theater screen used to be. He was easy to see because the floor slanted downward slightly. He held up his hands, and in a moment there was complete silence.

"I want to thank you all for coming." His voice was being amplified. It sounded as he were talking right next to Brooke instead of half a room away. "Your assignment today is easy. We do not want you sharing names, but you can talk about anything else. We will be providing meals later on in various restaurants—your badge ID will be listed on a door—and we will have drinks in the bar after that. We ask that no one leave before midnight, and that you all return at noon tomorrow for the second phase."

"That's it?" someone asked.

"That's it," Franke said. "Enjoy yourselves."

"I have a bad feeling about this, Tre," De said.

"Me, too," Brooke said. "It can't be this simple."

"I don't think it will be."

She sighed. "Well, we signed on for this, so we may as well enjoy it."

He looked at her sideways, his blue eyes bright. "Want to be my date for the day, darlin'?"

"It's always nice to have one friendly face," she said, surprised at how easily she was flirting with him. She never flirted with anyone.

"That it is." He offered her his arm. "Let's see how many of these nice folks are interested in conversation."

"Mingle, huh?" she asked, as she put her hand in the crook of his arm.

"I think that's what we're meant to do." He frowned. "Only god knows, I 'spect it'll all backfire 'fore the weekend's done."

It didn't backfire that night. Brooke had a marvelous dinner in one of the small restaurants with De, a woman from Boston, and two men from California. They shared stories about their lives and their jobs, and only touched in passing on the thing that they had in common. In fact, the only time they discussed it was when De brought it up over dessert.

"What made y'all sign up for this foolishness?" he asked.

"The money," said the man from Los Gatos. He was slender to the point of gauntness, with dark eyes and thinning hair. His shirt had wear marks around the collar and was fraying slightly on the cuffs. "I thought it'd be an easy buck. I didn't expect all the tests."

"Me, either," the woman from Boston said. She was tall and broadshouldered, with muscular arms. During the conversation, she mentioned that she had played professional basketball until she was sidelined with a knee injury. "I haven't had so many tests since I got out of school."

The man from Santa Barbara said nothing, which surprised Brooke. He was a short stubby man with more charm than he had originally appeared to have. He had been the most talkative during dinner—regaling them with stories about his various jobs, and his two children.

"How about you, Tre?" De asked Brooke.

"I wouldn't have done it if I wasn't part of the university," she said, and realized that was true. Professor Franke probably wouldn't have had the time to convince her, and she would have dismissed him out of hand.

"Me," De said, "I jumped at it. Never been asked to do something like this before. Felt it was sort of important, you know. Anything to help the human condition."

"You don't really believe that," Santa Barbara said.

"If you don't believe it," Los Gatos said to Santa Barbara, "why'd you sign up?"

"Free flight to Madison, vacationer's paradise," Santa Barbara said, and they all laughed. But he never did answer the question.

When Brooke got home, she sat on her porch and looked at the stars. The night was warm. The crickets were chirping and she thought she heard a frog answer them from a nearby ditch.

The evening had disturbed her in its simplicity. Like everyone else, she wanted to know what Franke was looking for. The rest of the study had been so directed, and this had been so free form.

Dinner had been nice. Drinks afterward with a different group had been nice as well. But the conversation rarely got deeper than anecdotes and current history. No one discussed the study, and no one discussed the past.

She lost De after dinner, which gave her a chance to meet several other

people: a woman from Chicago, twins from Akron, and three friends from Salt Lake City. She'd had a good time, and found people she could converse with—one historian, two history buffs, and a librarian who seemed to know a little bit about everything.

De joined her later in the evening, and walked her to the rail stop. He'd leaned against the plastic shelter and smiled at her. She hadn't met a man as attractive as he was in a long time. Not since college.

"I'd ask you to my hotel," he said, "but I have a feelin' anything we do this weekend, in or out of that strange building, is going to be fodder for scientists."

She smiled. She'd had that feeling too.

"Still," he said, "I got to do one thing."

He leaned in and kissed her. She froze for a moment; she hadn't been kissed in nearly ten years. Then she eased into it, putting her arms around his neck and kissing him back, not wanting to stop, even when he pulled away.

"Hmm," he said. His eyes were closed. He opened them slowly. "I think that's titillatin' enough for the scientists, don't you?"

She almost said no. But she knew better. She didn't want to read about her sex life in Franke's next book.

The rail came down the tracks, gliding silently toward them. "See you tomorrow?" she asked.

"You can bet on it," De said. And there had been promise in his words, promise she wasn't sure she wanted to hear.

She brought her knees onto her lawn chair, and wrapped her arms around them. Part of her wished he was here, and part of her was glad he wasn't. She never let anyone come to her house. She didn't want to share it. She had had enough invasions of privacy in her life to prevent this one.

But she had nearly invited De, a man she didn't really know. Maybe De really wasn't a Millennium Baby. Perhaps a bunch of people weren't. Perhaps that was what the numbers and the letters meant. She had spent much of the evening staring at them, wondering. They appeared to be randomly generated, but that couldn't be. They had to have some purpose.

She shook her head and rested her cheek on her knees. She was taking this much too seriously, the way she always took things. And soon she would be done with it. She would have bits of information she hadn't had before, and she would store them into a file in her mind, never to be examined again.

Somehow that thought made her sad. The night was beginning to get chilly. She stood, stretched, and made her way to bed.

The next morning, they met in a different room—the Rose Room—named after the character in the twentieth century movie *Titanic*. Brooke hoped that the name wasn't a sign.

There were pastries and coffee against the wall, along with every kind of juice imaginable and lots of fresh fruit, but again, there were no chairs. Brooke's feet hurt from the day before—she usually stood to lecture, but not for several hours—and she hoped she'd get a chance to sit before the day was out.

She was nearly late again, and hurried inside as they closed the doors. The room smelled of fresh air mixed with coffee and sweat. The group had gathered again, the faces vaguely familiar now, even the faces of people she

hadn't yet met. The people toward the back who saw her enter smiled at her or nodded in recognition. It felt like they had all bonded simply by spending an evening in the same room. An evening and the promise of a long week-end.

She shivered. The air-conditioning was on high, and the room was cold. It would warm up before the day was out; the sheer number of bodies guaranteed that. But she still wondered if she was dressed warmly enough in her casual lilac blouse and her khaki pants.

"Strange how these places look the same, day or night."

She turned. De was half a step behind her, his long hair loose about his face. He still wore jeans and his fancy boots, but instead of the denim shirt and bolo tie, he wore an understated white open collar shirt that accented his tan. Somehow, she suspected, he seemed more comfortable in this. Had he worn the other as a way of identifying himself or a way of putting others off? She would probably never know.

"The people look different," she said.

"Just a little." He smiled at her. "You look nice."

"And you're flirting."

He shrugged. "I always believe in using my time wisely."

She smiled, and turned as a hush fell over the crowd. Franke had mounted the stage in front. He seemed very small in this place. A few of his assistants stood on either side of him.

"Here it comes," De said.

"What?"

"Whatever it is that's going to make this cocktail party stop." He was staring at Franke too, and his clear blue eyes seemed wary. "I've half a mind to leave now. Want to join me?"

"And do what?"

"Dunno. See the sights?"

It sounded like a good idea. But, as she had said the day before, she had signed up for this, and she didn't break her commitments. And, she had to admit, she was curious.

She bit her lower lip, trying to think of a good way to respond. Apparently she didn't have to.

De sighed. "Didn't think so."

The silence in the room was growing. Franke stared at all of them, rocking slightly on his feet. If Brooke had to guess, she would have thought him very nervous.

"All right," he said. "I have a few announcements. First, we will be serving lunch at one P.M. in the main restaurant. Dinner will be at seven in the same place. You will not have assigned seating. Secondly, after I'm through, you're free to tell each other your names. We've had enough of secrets."

He paused, and this time Brooke felt it, that dread she had seen in De's eyes.

"Finally, I would like everyone with a letter on your name badge to go to the right side of the room, and everyone with a number to go to the left."

People stood for a moment, looking around, waiting for someone to go first. De put a hand on her shoulder. "Here goes nothing," he said. He ran his finger along her collarbone and then walked to the right.

"Come on, folks," Franke said. "It's not hard. Letters to the right. Numbers to the left."

Brooke could still feel De's hand on her skin. She looked in his direction, seeing his blond head towering over the small group of letters who had gathered near the pastries on the far right wall.

She took a deep breath and headed left.

The numbers had gathered near the pastries too, only on the left. She wondered what Franke's researchers would make of that. Los Gatos was there, his hand hovering between the cinnamon rolls and the donuts as if he couldn't decide. So was one of the twins from Akron, and the woman from Boston. Brooke joined them.

"What do you think this is?" Brooke asked.

"A way of identifying us as we run through the maze."

Brooke recognized that voice. She turned and saw Santa Barbara. He shrugged and smiled at her.

She picked up a donut hole and ate it, then made herself a cup of tea while she waited for the room to settle.

It finally did. There was an empty space in the center of the carpet, a space so wide it seemed like an ocean to her.

"Good," Franke said. "Now I'm going to tell you what the badges mean."

There was a slight murmuring as the groups took that in. Boston, Santa Barbara, and Los Gatos flanked Brooke. Her dinner group, minus De.

"Those of you with letters are real Millennium Babies."

Brooke felt a protest rise in her throat. She was born on January 1, 2000. She was a Millennium Baby.

"You were all chosen as such by your state or your country or your city. Your parents received endorsements or awards or newspaper coverage. Those of you with numbers . . ."

"Are fucking losers," Los Gatos mumbled under his breath.

"... were born near midnight on January 1, but were too late to receive any prizes. You're here because your parents also received publicity or gave interviews before you were born stating that the purpose behind the pregnancy wasn't to conceive a child, but to conceive a child born a few seconds after midnight on January 1 of 2000. You were created to be official Millennium Babies, and failed to receive that title."

Franke paused briefly.

"So, feel free to make real introductions, and mingle. The facility is yours for the day. All we ask is that you do not leave until we tell you to."

"That's it?" Boston asked.

"That's enough," Santa Barbara said. "He's just turned us into the haves and the have-nots."

"Son of a bitch," Los Gatos said.

"We knew that the winners were here," Boston said.

"Yeah, but I assumed there'd be only a few of them," Los Gatos said. "Not half the group."

"It makes sense though," Santa Barbara said. "This is a study of success and failure."

Brooke listened to them idly. She was staring at the right side of the room. All her life, she had been programmed to hate those people. She even studied a few of them, looking them up on the net, seeing how many articles were written about them.

She had stopped when she was ten. Her mother had caught her, and told her what happened to the others didn't matter. Brooke and her mother would have made more of the opportunity, if they had just been given their due.

Their due.

De was staring at her from across the empty carpet. That look of dread was still on his face.

"So," Santa Barbara said. "I guess we can use real names now."

"I guess," said Los Gatos. He hitched up his pants, and glanced at Boston. She shrugged. "I'm Julie Hunt. I was born at 12:15 Eastern Standard Time in . . ."

Brooke stopped listening. She didn't want to know about the failures. She knew how it felt to be part of their group. But she didn't know what it was like to be with the winners.

She wiped her damp hands on her pants and crossed the empty carpet. De watched her come. In fact the entire room watched her passage as if she were Moses parting the Red Sea.

The successes weren't talking to each other. They were staring at her.

When she was a few feet away from him, he reached out and pulled her to his side, as if she were in some sort of danger and he needed to rescue her.

"Comin' to the enemy?" he asked, and there was some amusement in his tone. "Or'd they give you a number when you shoulda had a letter?"

The lie would have been so easy. But then she would have had to lie about everything, and that wouldn't work. "No," she said. "I was born at 12:05 A.M. in Detroit, Michigan."

One of the women toward the back looked at her sharply. Anyone from Michigan might recognize that time. Her mother's lawsuits created more than enough publicity. Out of the corner of her eye, Brooke saw Franke. She could feel his intensity meters away.

"Then how come you made the crossin', darlin'?" De's accent got thicker when he was nervous. She had never noticed that before.

She could have given him the easy answer, that she wanted to be beside him, but it wasn't right. The way the entire group was staring at her, eyes wide, lips slightly parted, breathing shallow. It was as if they were afraid she was going to do something to them. But what could she do? Yell at them for something that was no fault of their own? They were the lucky ones. They'd been born at the right time in the right place.

But because they hadn't earned that luck, they were afraid of her. After all, she had been part of the same contest. Only she had been a few minutes late.

No one had moved. They were waiting for her to respond.

"I guess I came," she said, "because I wanted to know what it was like to be a winner."

"Standing over here won't make you a winner," one of the men said.

She flushed. "I know that. I came to listen to you. To see how you've lived. If that's all right."

"I'm not sure I understand you, darlin'," De said. Only his name wasn't De. She didn't know his name. Maybe she never would.

"You were all born winners. From the first moment. Just like we were losers."

Her voice carried in the large room. She hadn't expected the acoustics to be so good.

"I don't know about everyone else in my group, but my birthtime has affected my entire life. My mother—" Brooke paused. She hadn't meant to discuss her mother "—never let me forget who I was. And I was wondering if any of you experienced that. Or if you felt special because you'd won. Or if you even knew."

Her voice trailed off at the end. She couldn't imagine not knowing. A life of blissful ignorance. If she hadn't known, she might have gone on to great things. She might have reached farther, tried harder. She might have expected success with every endeavor, instead of being surprised at it.

They were staring at her as if she were speaking Greek.

Maybe she was.

"I don't know why it matters," a man said beside her. "It was just a silly little contest."

"I hadn't even remembered it," a woman said, "until Dr. Franke's people contacted me."

Brooke felt something catch in her throat. "Was it like that for all of you?"

"Of course not," De said. "I got interviewed every New Year's like clockwork. What's it like five years into the millennium? Ten? Twenty? That's one of the reasons I moved to L'siana. I'm not much for attention, 'specially the kind I don't deserve."

"Money was nice," one of the women said. "It got me to college."

Another woman shook her head. "My folks spent it all."

More people from the left were moving across the divide, as if they were drawn to the conversation.

"So'd mine," said one of the men.

"There wasn't any money with mine. Just got my picture in the newspaper. Still have that on my wall," another man said.

Brooke felt someone bump her from behind. Los Gatos had joined her. So had Santa Barbara and Boston—um, Julie.

"Why'd this contest make such a difference to you?" one of the letter women asked. She was staring at Brooke.

"It didn't," Brooke said after a moment. "It mattered to my mother. She lost."

"Hell," De said. "People lose. That's part of living."

Brooke looked at him. There was a slight frown mark between his eyes. He didn't understand either. He didn't know what it was like being outside, with his face pressed against the glass.

"Three weeks after I was born," Los Gatos said, "My parents dumped me with a friend of theirs, saying they weren't ready for a baby. I never saw them. I don't even know what they look like."

"My parents said they couldn't afford me," Santa Barbara said. "They were planning on some prize money."

"They abandoned you too?" the woman asked.

"No," he said. "They just made it clear they didn't appreciate the financial burden. If they'd won, I wouldn't've been a problem."

"Sure you would have," De said. "They just would've blamed their problems on something else."

"It's not that simple," Brooke said. Her entire body was sweating, despite the chill in the room. "It was a contest, a race. A lot of people didn't look beyond that. There were news articles about abandoned and abused babies, and there were a disproportionate number born in December, January, and February of 2000, because parents wanted to split some of the glory."

"You can't tell me," De said, "that something as insignificant as the time we were born determines our future."

"It does," Brooke said, "if we're brought up to believe it does."

"That bear out, Professor Franke?" De said.

Brooke turned. The professor was standing close to them, listening, look-

ing both bemused and perplexed. Apparently he had expected some kind of reaction, but probably not this one.

"That's what I'm trying to determine," Franke said.

"And I'm askin' you if you determined it," De said.

Franke glanced at one of his assistants. The assistant shrugged. The entire room full of people was crowded around Franke, and was silent for the second time that day.

"This part of the study is experimental," he said. "I'm not sure if answering you will corrupt it."

"But you want to answer me," De said.

Franke smiled. "Yes, I do."

"It's an experiment," Brooke said. "You can always throw this part out. You might have done that anyway. Isn't that what you told me? Or at least implied?"

Franke glanced from her to De. Then Franke straightened his shoulders, as if the gesture made him stronger. "I believe that Brooke is right. My studies have convinced me that something becomes important to a child's development because that child is told that something is important."

"So us losers will remain losers the rest of our lives," Los Gatos said.

Franke shook his head. "That is not my conclusion. I believe that when something becomes important, you choose how to react to it." His voice got louder as he spoke. His professor's voice. "Some of you wearing letters have not done as well as expected. You've rebelled against those expectations and worked at proving you are not as good as you were told you were."

A flush colored De's tan cheeks.

"Others lived up to the expectations and a few of you, a very small few, exceeded them. But—" Franke paused dramatically. "Those of you who wear numbers are financially more successful as a group than your lettered peers. You strive harder because you feel you have something to overcome."

Brooke felt Los Gatos shift behind her.

"I think it goes back to the parameters of the study," Franke said. "Your parents—all of your parents—wanted to improve their lot. They all had drive, therefore most of you have drive. We've found a biological correlation."

"Really? Wow," Santa Barbara said.

"But there's more than biology at work here."

"I'd hope so," De said. "I'd hate to think you can determine who I am by reading my genes."

Franke gave him a small smile. "Your parents," Franke said, "all chose a contest as the method of improving their lives. A lottery, if you will. And most of them failed to win. Or if they succeeded, they discovered Easy Street wasn't so easy after all. You numbered folk have realized that luck is overrated. The only thing you can trust is work you do yourselves."

"And what about those of us with letters?" one of the twins from Akron asked.

"You learned a different lesson. Most of you learned that luck is what you make of it. You might win the lottery, but that doesn't make you or your family any happier than before." Franke looked at Brooke. "There were a lot of studies, some of them prompted by your mother, that showed how many unsuccessful Millennium Babies were abandoned or mistreated. But the successful ones had similar problems. Only no one wanted to lose the golden goose as long as it was still golden. Many of those abandonments were

emotional, not physical. People became parents to become rich or famous, not because they wanted children."

"Sounds like you should be studying our parents," Los Gatos said.

Franke grinned. "Now you have my next book."

And the group laughed.

"Feel free to enjoy the rest of the day," Franke said. "Over the rest of the weekend, I'll be talking to individuals among you, wrapping things up. I want to thank you for your time and participation."

"That's it?" De asked.

"When you leave here tonight, if I haven't spoken to you," Franke said. "That's it."

His words were met with a momentary silence. Then he started to make his way through the group. Some people stopped him. Brooke didn't. She turned away, not sure how to feel.

She wasn't as successful as she wanted to be, but she was better off than her mother had said she would be. Brooke had her own house, a good job, interests that meant something to her.

But she was as alone as her mother was. In that, at least, they were the same.

"So," De said. "Is your life profoundly different thanks to this study?"

The question had a mixed tone. Half sarcasm, half serious. He seemed to be waiting for her answer.

"What's your name?" she asked.

"Adam," he said, wincing. "Adam Lassiter."

"The first man."

"If I'd missed my birth time, I'd have been named Zeb." He smiled as he said that, but his eyes didn't twinkle.

"I'm Brooke Cross." She waited, wondering if he'd guess at the name, despite the change. He didn't. Or if he did, he didn't say anything.

"You didn't answer my question," he said.

She looked at the room, at all the people in it, most engaged in private conversations now, hands moving, gazes serious as they compared and contrasted their experiences, trying to see if they agreed with Professor Franke.

"When I was a little girl," she said. "We lived in a small white house, maybe 1200 square feet. A starter, my mother called it, because that was all she could afford. And to me, that house was the world. My mother's world."

"What kind of world was that?" he asked.

She shook her head. How to explain it? But he had asked, and she had to try.

"A world where she did everything right and failed, and everyone else cheated and somehow succeeded. If she'd had the same kind of breaks your parents had, she believed she would have done better than they did. If she hadn't had a child like me, one who was chronically late, her life would have been better."

He was watching her. The crease between his eyes grew deeper.

Her heart was pounding, but she made herself continue. "A few years ago, when I was looking for my own home, I saw dozens and dozens of houses, and somewhere I realized that to the people living in them, those houses were the world."

"So each block has dozens of tiny worlds," he said.

She smiled at him. "Yeah."

"I still don't see how that relates."

She looked at him, then at the room. The other conversations were continuing, as serious as hers was with him. "You asked me if this study changed my life. I can't answer that. I can say, though, that it made me realize one thing."

His gaze was as intense as Franke's.

"It made me realize that even though I had moved out of that house, I hadn't left my mother's world."

He studied her for a moment longer, then said, "Sounds like a hell of a realization."

"Maybe," she said. "It depends on what I do with it."

He laughed. "Thus proving Franke's point."

She flushed. She hadn't realized she had done so, but she had. He leaned toward her.

"You know, Brooke," Adam said softly, "I like women who are chronically late. It balances my habitual timeliness. How's about we have lunch and talk about our histories. Not just the day we were born, but other things, like what we do and where we live and who we are."

She almost refused. He was from Louisiana, and she was from Wisconsin. This friendship—if that's all it was—could go nowhere.

But it was that attitude which had limited her all along. She had been driven, as Franke said, to succeed materially and professionally on her own merits. But she had never tried to succeed socially.

She had never wanted to before.

"And," she said, "you get to tell me what you learned from this study."

"Assumin'," he said with a grin, "that I'm the kinda man who can learn anything a'tall."

"Assuming that," she said and slipped her hand in his. It felt good to touch someone else, even if it was only for a brief time. It felt good.

It felt different.

It felt right. ○

## ARE YOU MOVING ?

If you want your subscription to ASIMOV'S to keep up with you, send both your old address and your new one (and the zip codes for both, please!) to our subscription department:



**ASIMOV'S SCIENCE FICTION**



**P.O. Box 54033, Boulder, CO 80322-4033**

or fill out the change-of-address form on our website:

[www.asimov's.com](http://www.asimov's.com)

# Asimov's

## SCIENCE FICTION

# CONGRATULATES

## THE WINNERS OF THE

# 1998

## HUGO AWARDS

### Best Novel

*To Say Nothing of the Dog*  
Connie Willis

### Best Novelette

"Taklamakan"  
Bruce Sterling

*Asimov's*, October/November 1998

### Best Related Book

*The Dreams  
Our Stuff Is Made Of:  
How Science Fiction  
Conquered the World*  
Thomas M. Disch

### Best Professional Editor

Gardner Dozois

### Best Dramatic Presentation

*The Truman Show*

### Best Fan Writer

Dave Langford

### Best Fan Artist

Ian Gunn

### Best Novella

"Oceanic"  
Greg Egan

*Asimov's*, August 1998

### Best Short Story

"The Very Pulse  
of the Machine"  
Michael Swanwick

*Asimov's*, February 1998

**John W. Campbell Award  
for Best New Writer**  
Nalo Hopkinson

### Best Fanzine

*Ansible*

### Best Semiprozine

*Locus*

edited by Charles N. Brown

### Best Professional Artist

Bob Eggleton



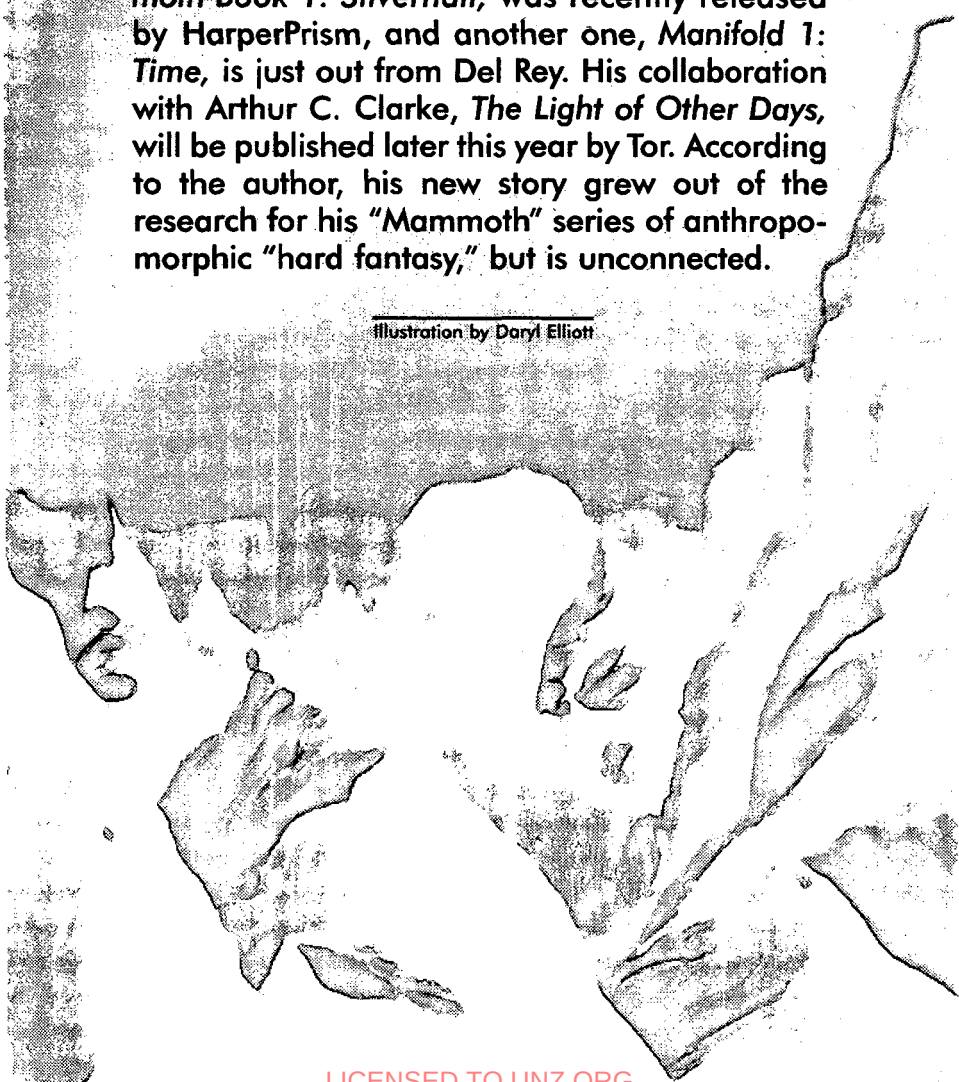
LICENSED TO UNZ.ORG  
ELECTRONIC REPRODUCTION PROHIBITED

Stephen Baxter

# BEHOLD NOW BEHEMOTH

One of Stephen Baxter's latest novels, *Mammoth Book 1: Silverhair*, was recently released by HarperPrism, and another one, *Manifold 1: Time*, is just out from Del Rey. His collaboration with Arthur C. Clarke, *The Light of Other Days*, will be published later this year by Tor. According to the author, his new story grew out of the research for his "Mammoth" series of anthropomorphic "hard fantasy," but is unconnected.

Illustration by Daryl Elliott



walked with my mother on Bodmin Moor.

The Moor is a large, wild area to the north-east of the county of Cornwall, England. Granite peaks push through the crumpled green land, on which are scattered ancient round stone huts.

That day, the sky was a lid of grey cloud.

We'd been talking about the Beast of Bodmin. The local papers—and sometimes the nationals—still report sightings of the Beast. For instance, there had been a recent case of a farmer in Simonsbath who said he lost a dozen lambs.

My mother snorted. "Ridiculous. Fifty miles away. Just locals trying it on. There can't have been any authentic sightings since—"

"Since when?"

"Well, around 1870."

And I knew then why I'd been summoned home. For the first time in my life, my mother was going to open up about the big family secret: the "thing in the barn," the fire—long before I was born—that killed my great-grandfather . . . and maybe something else.

I kept silent, waiting for more.

"They used to bring it up here, you see," she said. "Good grazing land."

"It," I said. I scarcely dared to breathe.

"I never quite knew what to call it . . . I thought it was time you knew."

"Family secrets, huh?"

"Well, as a family, we're secretive. And loyal to a fault."

"So why didn't you tell me earlier?"

She stopped, the wind pushing at her mass of stiff grey hair, and she took my hands. "I wanted you to have your own life, Howard. I didn't want you chasing monsters of the past."

Maybe that was true.

"Tell me what happened in 1870."

"It was out on the Moor. Just grazing, you know. It was old even then. Harmless. But it was set on by the locals. Granddad's story is they mutilated it."

"Mutilated? How?"

"Its face . . ."

I frowned.

Clancy would suggest later, "Maybe they cut off its tusks."

We walked further.

I still don't know if I believe it. It is, after all, a tangled tale that links President Thomas Jefferson and Erasmus Darwin and my own great-great-great-grandfather, and dwarf Californian mammals and the Beast of Bodmin and . . .

Clancy believes it all, of course. But then, he's a paleontologist. I have observed that scientists are as conservative as hell about their own subjects, but happy to speculate like a supermarket tabloid on stuff they know nothing about. That's Clancy all over.

It all started because, one day, I took Tracy, my daughter, to see a mammoth.

A reconstructed skeleton anyhow: huge ribs and tree-trunk leg bones and extravagantly spiraling tusks, spot-lit in a museum. It had been dug out of the La Brea tar pits in LA, along with a couple of dire wolves that had probably fallen in later, trying to feed on this wretched giant trapped in the sticky mud.

Sitting on a lawn chair alongside Clancy, I showed him my souvenirs of this expedition: postcards, key rings, a little crystal mammoth.

He studied one of the postcards, an artist's reconstruction of a Columbian mammoth. "*Behold now Behemoth,*" he mused. "*His bones are as strong pieces of brass; his bones are like bars of iron. . . .*"

"I sent my mother a postcard. From Tracy. My mother wrote back."

Clancy grimaced. "That's not like her." Clancy and I were at high school together; he knew my mother.

"She said something odd in her letter. She said the postcard artist got it wrong."

"Got what wrong?"

"The color of the mammoth's hair." The artist had drawn it a kind of chestnut brown. "My mother said it should be much darker brown. Like a musk ox's."

Clancy was silent for a time, and the spring sun beat down on his weed-ridden, overgrown lawn, while he jumped to conclusions.

He said, "When will you see your mother again?"

My family is loyal, but secretive. The English side, anyhow. Even as a kid, I was aware of secrets, old dark hidden things the adults wouldn't talk about.

Like the story of the beast in the barn, which had always intrigued Clancy.

I hadn't visited my mother, in England, for five years. Going there would be a big personal deal. But it seemed to me my mother was hinting, in her letter, that she wanted to open up a little. Why the hell, I had no idea.

Even so, I hesitated before responding. Believe me, if you don't have a close relationship with your mother, you enter an emotional minefield every time you talk to her. Sad but true.

I grew up in Washington State with my father. Dad was in the Air Force, stationed near London in the late 1950s. I was conceived in London, born in Liskeard, Cornwall, brought up mostly in Washington State. My father's career brought him back to Seattle, but my mother's family ties locked her to Cornwall. My parents spent a few years Atlantic-hopping. They stopped trying when I was five years old.

As broken homes go, I got an easy ride, I guess. Clancy knows the story. He lived through most of it.

Well, I booked a vacation.

I flew into Heathrow with my family. I left my wife with Tracy in London—Jan never got on with my mother—and I took a rented car out to Cornwall, alone.

When I was close to home, I got stage fright.

I took a detour along the Cornish coast.

Cornwall is the peninsula that juts out into the Atlantic off the southwest corner of England. Cornwall was spared the Pleistocene ice, but when the thaw came, the rising sea levels flooded some of its river valleys. There are moorlands in the interior, intrusions of granite that have made for good rough grazing land, miles and miles of it. The sunken coast, the granite hills, make for a lovely landscape. So lovely that it's choked with visitors most summer days.

Along the coast, at places like Towanroath and Botallack, you can see the tall chimneys of the engine houses of abandoned tin mines. Some of the

deep shafts went out under the ocean; the miners would say you could hear the big Atlantic breakers booming through the solid rock above your head. Now, like all the other mines in Cornwall, the coastal workings are disused—*knacked bals*, as the locals would say.

The landscape was just as it had been when I was a kid. Claustrophobic, dark, deep, layered with history I didn't share.

Although, one day, I would own a tin mine.

I reached the family house, near Liskeard. The house dates back to around 1750, but it's been built-over by successive generations; it's reached the end of the twentieth century as a bizarre, mostly Victorian, mock-Tudor pastiche.

I could see the scar of the stable-house fire of 1940: great billowing black marks up the wall of the main house, a monument to my family's darkest secret. My mother was a little girl here at the time. The fire killed my great-grandfather—also called Howard, like me—and they never rebuilt the stable. Even then, in 1940, the mines were declining.

My mother greeted me. She was living alone in the big rambling house. She'd become a small birdlike woman, with a mass of windblown grey hair.

She didn't meet my eyes. But then she never did. After five years apart, she let me peck her cheek.

She gave me tea in the parlor. It was a stuffy museum of a room. It had one gigantic cupboard, like something you'd find in a geology museum. Its monumental drawers—which fascinated me as a kid—contained rock samples from the mine, lumps of rust-red tin ores.

We talked stiffly about family, the house. Politics.

As usual, my mother took her own sweet time getting to the point.

Clancy said, "I give you Job 40, verse 15. *Behold now Behemoth, which I made with thee; he eateth grass as an ox.*"

"So what?"

"So what do you think the *behemoth* is supposed to be?"

Over the years, to hold my own with Clancy, I've looked up some of this stuff. "The word probably comes from the Egyptian *Pehemout*—which means 'the water bull—'"

"A hippopotamus. Well, it's possible."

"Clancy, anything's possible—"

"Yes. Like dwarf mammoths."

I was lost already. "Dwarfs?"

Clancy has a thing about mammoths.

It dates back to a fossil-hunting trip we took as kids on the bank of the Columbia River, where the Clovis people once hunted the great herds of Ice Age megafauna. Embedded in a rock stratum we found a piece of mammoth tusk, bluish, curving. A piece of wild elephant, in North America. A spur to the imagination. It turned Clancy on to paleontology in general, and extinction events ended up as his specialty. Though not the event that took the mammoths.

That doesn't stop him having theories, though. In fact—unconstrained by too much fact—quite the opposite.

Clancy believes some mammoths survived the general extinction ten thousand years ago. He believed that, in fact, even *before* the business with my mother and our peculiar family history.

Then again he believes many things. I think he likes believing in things. Like a hobby.

Things such as dwarf mammoths.

Off the shore of California you'll find the Channel Islands, San Miguel and Santa Rosa and Santa Cruz. Maybe, said Clancy, the Islands had a population of mammoths.

You might wonder how the hell they got there in the first place. In the Ice Age the sea level was lower, and the Islands were linked—but the mainland was still twenty miles or so away, and the only way the mammoths could have gotten there was by swimming. But it's possible, as Clancy says.

And, stranded there, they became dwarfed. They finished no higher than six feet or so at the shoulder—a mere three inches taller than me.

"It happens," says Clancy. "In the Mediterranean, during the Pleistocene, there were dwarf antelopes on the Balearic Islands, dwarf hippopotami on Cyprus, miniature deer on Crete. All you need is a few thousand years of isolation, a restricted food supply."

This isn't bull. The remains of at least fifty fossilized dwarf mammoths have been dug up on Santa Rosa alone. But there's no evidence they survived until recent times.

Or maybe there is.

"There are Native American tales," Clancy said. "The Algonquians tell of a 'great moose' with a kind of limb that grew between its shoulders, a 'fifth leg' it used to prepare its bed. And the Naskapi of north-eastern Labrador knew of a monster with a long nose it used to hit people. And then there are the reports of remains of mastodonts and mammoths turning up on the American frontier all through the nineteenth century."

"What reports?"

"Finds of mammoth bones with soft tissue attached, like trunks."

"Myth. Folklore. Faked reports to encourage explorers and settlers. Plain misunderstandings."

"A bunch of Shawnee near the Ohio river found the trunk of a mastodont still attached to the skull."

"Actually the report described a skull with a long nose bone, not a trunk."

"In 1839, a guy called Koch found mastodont bones with skin attached in Missouri."

"Oh, come on. Koch was a showman. He was trying to make a living."

"But the reports were consistent. The hair found stuck to the flesh was usually a dun color."

"That's because it was probably algae clinging to buffalo bone. . . ."

And so on. We argued about mammoths, living and dead, long into the night. Clancy won't stay contradicted for long. That's the beauty of the man.

My mother and I walked around the mine workings.

The winching-tower was still there. There was a pile of ore, abandoned after the last workings. Pink dust lingered around it.

"On the surface," my mother said, "even when a hundred men were working two thousand feet down, you couldn't hear a thing. Not until they came up, anyway, the tanners and the trammers, hard hats and stripped to the waist, coated with the pink dust." I remembered them. Huge men who used to ruffle the hair of a diminutive Yank. "*Kernow bys vykken!*"—Cornwall forever! My mother said, "Even after a hot bath and a scrub, the miners' sheets were always stained pink. Of course they often died young, of pulmonary diseases."

Thus, my childhood.

Now I work for an aerospace consultancy in Seattle. We have a bright office, all glass, that overlooks the Sound. I work on advanced concepts, space stuff, suborbital and orbital. In a building that's as new as the morning sun, I study craft that don't even belong to the Earth. The whole West Coast is *new*. Christ, it's only two hundred years since Captain Cook came exploring.

Tracy tells me I'm a culture-shock case study.

The tin mine has been in the family for two hundred years. In the last few decades, we exhausted the shallow tin deposits, and foreign production got cheaper, and then the collapse of tin prices in the 1980s finished us off for good.

Kind of a shame, after all that time. I don't know what I'll do with the land. Sell it as a trailer park or a retirement community, maybe.

After that, we took our walk on Bodmin, and talked about *it*.

"... After the mutilation," my mother said, "they never took *it* out of the grounds again. And Granddad started to care for it. He was only a boy himself at the time. . . . So you see, there *can't* have been any Beast sightings after that time."

"And he looked after—*it*—until the fire—"

"During the war."

The Second World War. 1940. Seventy years after the mutilation, I thought. He cared for *it* for seventy long years.

"So who looked after—*it*—before my great-grandfather?"

"His grandfather. And he got *it* in the first place, from Erasmus Darwin. In fact he was a student of Darwin's."

"Darwin? The evolution guy?"

She pursed her lips, the way she always did when I said something dumb. "No. Erasmus was Charles's grandfather. But he was a naturalist too. He bequeathed *it* to the family when he died."

"So how long did grandfather's grandfather care for it?"

She shrugged. "The story is, since the turn of the century."

Now I was confused. "The twentieth century?"

"No," she said, mildly irritated. "The nineteenth."

Seventy years plus seventy more years . . .

"Come on," she said, "I'm getting cold. You can stand me a toasted tea-cake."

The Columbian mammoth was America's very own mammoth species. She was bigger than her woolly cousin—up to thirteen feet tall at the shoulder and weighing ten tons—and with a lighter coat, since she lived so much further to the south, in regions that stayed reasonably temperate even in the Ice Age. She lived alongside a lot of exotic critters, like giant armadillos and saber-toothed cats. And she had gigantic, spiraling tusks, Texas tusks.

We don't know what drove the mammoths to extinction.

For sure, the climate changes when the ice retreated must have put them under pressure. But that had happened before. And, today, elephant populations recover from drought die-backs and such.

The difference, says Clancy, was people.

Clancy painted me a picture of humans hanging around the great die-off sites, where the mammoths, stranded in dwindling pockets of the grasslands that sustained them, fought and starved.

We just waited for them to die. We didn't hunt them. We didn't even have

to butcher the corpses properly, there were so many of them, so much warm fresh meat every day.

We pushed them too hard, and, pow, extinction. The end of evolution, forever.

It must have been magnificent to see one of those creatures pass by. Dark and huge, she would have been the biggest moving thing in the world. And her walk would have been a sway of liquid grace, her head nodding with each step, her trunk swaying, her great weight obvious.

Gone, all gone.

Unless Clancy is right.

I admit that it was eerie when I looked up Erasmus Darwin on the Internet and found that he died in 1802, a date that exactly fit our peculiar family legend.

"I saw it once," my mother said abruptly.

"In the stable?"

"I was five years old," she said. "I used to find it frightening—the rumbling noises it made—oh, I hated it."

"What was it like?"

She frowned. "Like a fat, toothless, hairy old pony. It had a deformed face, a long nose."

"A long nose? Did it have tusks?"

"Of course it didn't have tusks. And the *stink*. And always eating. The amount of grass it used to get through, and the volumes of *dung* it produced. And of course," my mother went on, "the thing was devoted to my granddad. Well, he'd been looking after it since he was a boy. It had been toothless most of that time."

"You mean tuskless."

She sighed. "*Toothless*. Granddad told me that *his* granddad told him that it had only one pair of teeth at a time, huge molars that grew forward in its jaw. When they wore out, a new set replaced the old. Until there were no more new teeth, which happened when Granddad was still a boy. After that he was given the job of grinding up grass and hay for the wretched animal. . . ."

Without which care, like an old elephant whose last set of teeth has worn out, *it* would have starved.

Seventy years of devotion, between my great-grandfather and the monster in the barn. I told you we're loyal.

It stretched even Clancy's credulity to believe there could have been a mammoth in a barn in Cornwall for the whole of the nineteenth century. Still, when I told him about Erasmus Darwin, he found a way. Which was how Thomas Jefferson comes into the picture.

Long story.

Jefferson—author of the Declaration of Independence, president twice over—had many interests. Including natural history.

Jefferson had a particular fascination with mammoths and mastodons. Mastodont bones had turned up in the Big Bone Lick, a salty bog in Kentucky. Jefferson believed there was no such thing as an extinct animal. He believed mammoths and mastodons might still be living in the American West.

Meanwhile there were scholars already digging around in the West. One of them was Baron Georges Cuvier.

"Who?"

"French anatomist," said Clancy. "Eventually he proved that the fossil bones of animals like mammoths and mastodonts must be from creatures no longer living on the Earth. But—just suppose dwarf mammoths on the Channel Islands did survive until historical times."

"Long enough for Cuvier to have found one in 1800."

"One of the last survivors, maybe. And then he brought it home and gave it to Thomas Jefferson."

I sighed. "How come we never heard of this?"

"You have to understand the nature of the fossil record. Gaps everywhere. And as for history, people *lie*, Howie. If Cuvier went to all the trouble of establishing his Big Idea, that species go extinct, and then he found a counter-example to one of his most stunning cases—"

"He'd cover it up."

"Yeah. We know Jefferson was a great gift-giver."

Again Clancy was losing me. "He was?"

"Of course. And he was a great correspondent of some of the great men of science of his day—"

"Such as Erasmus Darwin? Too complicated, Clancy."

"I checked. Darwin and Jefferson had at least one acquaintance in common: Joseph Priestley, the chemist. And Darwin, as a naturalist, *would* have been interested in mammoths, and other extinct species. I imagine Jefferson would have enjoyed stirring up controversy among the radical types like Darwin with a live 'extinct' animal."

"Darwin dies in 1802, in Derbyshire, England. And his faithful student, your great-great-great-grandfather, is willed the mammoth and takes it to the family home in Cornwall. And the rest, as they say, is history. Your family history."

"Why didn't you come to America with Dad?"

"I couldn't leave all this. Howard, there have been mines in this area for *three thousand years*. We used to trade with the Phoenicians, for God's sake. It didn't seem right just to end it. After your grandfather died, there was nobody but me to run the place. *Sten uyw arghans*."

"Tin is money."

"Yes."

"But you didn't want me here."

We sat in silence for a while. My family has always been good at that.

Then my mother went to the big geological cupboard and pulled open a drawer. It was heavy, deep.

It was full of bones. Charred bones.

"The fire," I said.

"Yes. We never knew who started it—"

"Who?"

She shrugged thinly. "It was probably one of the locals. Superstitious lot, they can be. They wouldn't tell me what happened. Whether Granddad went into that fire to try to get it out. Or—"

"Or what?"

"Or whether *it* went in after *him*." She looked at me, her eyes rheumy. "I'd quite like to believe one or the other, wouldn't you? I mean, seventy years must count for *something*. *Yma-ef barth a woles yn pyt down ow lesky*."

I could translate that. "He's down below, in a deep pit a-burning."

"However it happened, both of them died."

I fingered the bones. There were ribs, and fragments of huge thigh-bones, and at the bottom of the pile what looked like a skull, surprisingly graceful.

"Clancy, even if Thomas Jefferson did have a pet dwarf mammoth in 1802—and even if it did get shipped to England—it couldn't have survived until 1940."

"Why not?"

"Because it would have been, conservatively, a hundred and forty years old!"

Clancy wasn't fazed. "When Napoleon was in Egypt in 1798, the Turkish Pasha gave him a live elephant—an Asian bull, called Siam—that he brought back to Paris. Napoleon gave it to his father-in-law, who was Emperor of Austria. Siam was put into the Imperial menagerie in Vienna. But he turned savage, and they shipped him off to Budapest. There were reports that he was still alive in 1930, at the age of 150."

"Oh, crap."

"Siam turned docile with age," Clancy pointed out.

"You're saying this is what happened? Thomas Jefferson collects a mammoth. He keeps it for a while in Virginia. Then he gives it away to Darwin—"

"I'm saying it's *possible*. It's a *hypothesis*. And isn't it plausible? Logical? *Human?*"

That's Clancy for you. He just won't stay contradicted.

She looked me full in the face. Her eyes were a rich earth brown (like, I thought absently, a mammoth's). "I didn't want you growing up with—*this*. This place. The underground. Obsessions with darkness and pink rock and ancient tongues . . . There's something Paleolithic about it. I didn't want you being trapped here, like me. I'm sorry," she said.

It was then that I understood. With her hints of family legends and Bodmin beasts, she'd lured me here. It was the nearest she could bring herself to saying goodbye.

That was what it was all about, you see. The subtext. She was dying.

We never were good at talking.

I touched the bones sadly. "*Behold now Behemoth . . . His bones are as strong pieces of brass; his bones are like bars of iron.*"

The last mammoth?

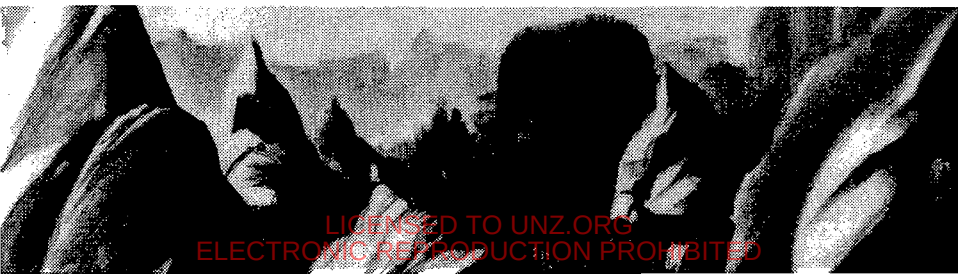
She eyed me. "It was only a horse, you know. A great big, ugly, deformed horse."

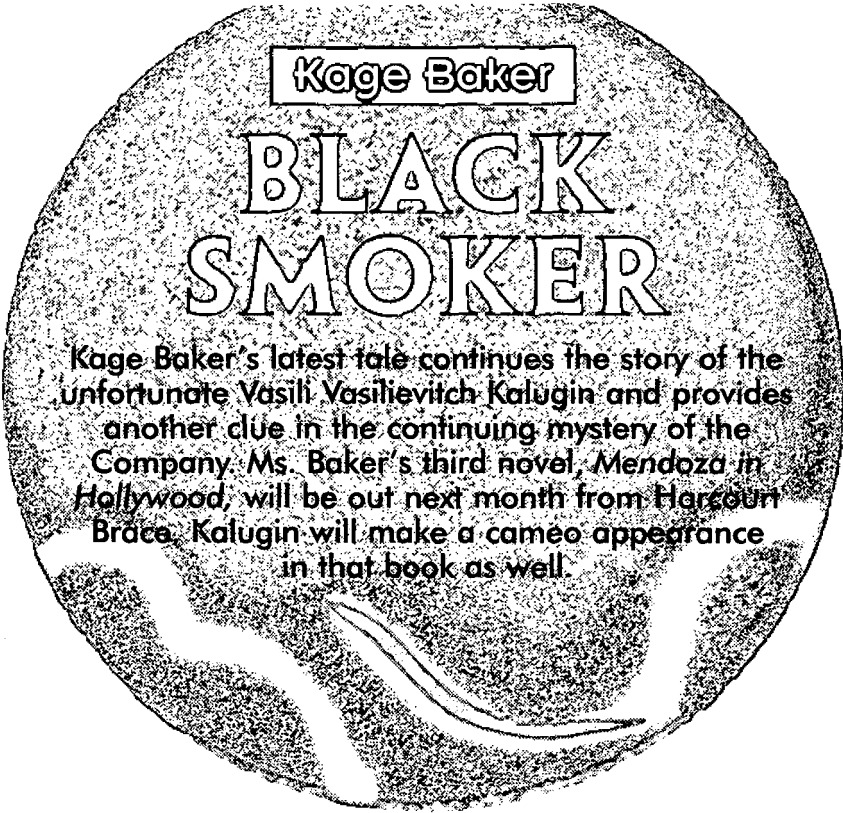
It could have been a horse. I'm no anatomist. Of course, horses don't live for 140 years. . . . Maybe there was more than one horse.

I put the bones back in the drawer.

I never showed Clancy the bones. Somehow it wouldn't seem right. Then he'd have to take it all seriously.

Maybe I'll bury them with my mother. ○





Kage Baker

# BLACK SMOKER

Kage Baker's latest tale continues the story of the unfortunate Vasili Vasilievitch Kalugin and provides another clue in the continuing mystery of the Company. Ms. Baker's third novel, *Mendoza in Hollywood*, will be out next month from Harcourt Brace. Kalugin will make a cameo appearance in that book as well.

I suppose I can just keep talking until the oxygen runs out. Yes, that would probably be a good idea, wouldn't it? Because then it'll be an anaerobic environment in here and no bacteria will grow. I'll be in better shape when they find me. Less effort for the one who has to piece together what happened . . . and less upsetting for Nan, I mustn't forget that!

For of course I'll be rescued. They'll find me. Even though the *Alyosha's* disappearance is masked by an Event Shadow, even though the portholes are beginning to be obscured by a film of what I am terribly afraid is mineral deposit that will set like concrete and entomb me in here, to say nothing of making the little sub impossible to spot way down here in the Aleutian Basin. . . .

I do wish those appalling ticking noises would stop. Anyone less cheerfully determined than I am would suspect they were hairline cracks forming in the hull. I could survive the hull collapsing, of course, but then I'd be . . .

But the Company will find me. I'll be repaired, someday. I believe in that, yes, I do, with my whole heart and soul, don't I? Certainly I do. Keep talking, Vasili Vasilievich. That way you won't start screaming and after all why should you scream? Everything's going to be perfectly all right. The Company will find you. You've been broadcasting your distress signal loud enough to reach every cyborg operative in the Eastern Hemisphere and possibly one or two Kabbalist rabbis in Poland.

Hm, hm, hm, life flashing before one's eyes. Very large red worm dragging itself across the glass and leaving a clear trail, oh, dear, there really is

Illustration by Shirley Chan

quite a lot of dark debris drifting down from the volcanic vent, isn't there? But that's why they call them *black smokers*, isn't it?

Is it? Would you like me to tell you my life story, large red worm? If I do, will you stay? Perhaps if you keep clearing the debris from that one port-hole there'll be some clue for the rescue team, one tiny circle of light in the darkness with my frightened face pressed to it, mouth moving endlessly in pointless conversation. Yes, perhaps.

All right. What's my earliest memory? Being a mortal child. I was the big boy of the family. I was four. I think. Two sisters, Dunya and Sima. I remember them very well. Dunya was eight and Sima was three. Dunya had long braids and Sima had little short ones. We lived in a big house. I was frightened of Papa. He beat the servants, even the girls. But we had a lot of servants. We had fine clothes and toys, too, and our house had a wooden floor. So you can see we were somebody, my family.

Maybe the money and estates belonged to Mama? She never seemed bothered that Papa beat the servants and shouted at her, she just pretended he didn't exist. I don't know how trustworthy my memory is, of course, since I'd run and hide whenever Papa would rage. Dunya called me a coward. Hardly fair; she'd run and hide, too. But she never cried. I cried all the time. How squalid it all is, this memory, and how brief.

It ends, you see, the day it was warm enough to go outside and take bread to old Auntie Irinka. She can't have been my aunt really; I have the impression she lived in a little dark house in the fir woods, like Baba Yaga, and we were taking bread to her for charity. An old retainer put out to honorable pasture, perhaps? Sadly, she never got her bread.

Was it Dunya's fault? She was old enough to know better. I was the big boy of the family, though, I ought to have done something.

You see, the footpath ran along the bank of the river. Quickest route. Our nurse should have taken us some other way, I suppose, but Masha was impatient. We weren't going quickly enough for her, either, at least Dunya was but it took Sima ages to get anywhere on her little fat legs and I was slow too, carrying the big bread loaf because I was the big boy, and so bundled up in my stiff coat I must have looked like a penguin walking. I should have fallen in too. . . .

Well, Masha decided she couldn't wait and told us to stop there on the path and not to move until she came back, and then she ducked away into the trees to attend to a private matter. We stood and waited. There was such sunlight! Such a raw powerful smell of new life beginning! The wild smell of the trackless forest. Dark wet earth where the snow was melting, buds swelling on the branches, little green shoots sprouting everywhere. And the yellow-white surface of the river, still frozen solid. And Dunya said,

"Let's go skating," and I said,

"We haven't got skates with us."

Dunya tossed her braids at this and told me we could make skates out of sticks, and I said we couldn't, and she said she'd show me, and she scrambled down the embankment and broke a couple of forked sticks from a dead branch and stepped into them, and she actually did manage to sort of limp around on the ice. Sima wanted to skate too and staggered down the embankment. There weren't any other good sticks but Dunya hobbled over and took her hands and towed her out after her, slipping and complaining, and they went all the way across over to the far side of the river, and had just started back. None of us paid attention to the noises like thunder, far off, or

noticed that they were coming nearer. We didn't even know what they meant.

But Masha knew, and her anger was almost greater than her fear, I think, when she came running back through the forest. She called us all sorts of names as she jumped down to the edge of the ice and demanded that the girls return immediately. Both the little faces turned up to her in surprise, and then, BOOM. . . .

I think I closed my eyes. I'm sure I did. I always used to close my eyes when I was frightened. There was some shouting, I think, but I can't recall much about that; and when I finally opened my eyes, I recall how astonished I was. Everything had changed! The glaring bright surface of the river had broken up, all that stillness was now a surging living current of brown water and great islands and bobbing floes of ice, and the boom-boom-boom like thunder was still going on all around.

But of Masha or my sisters there was no sign. They had vanished. I stood there staring, hugging the big loaf of bread. I had no idea what had happened. Minutes passed and nothing changed; I was still alone there on the footpath with the bread.

No, no, big worm, come back! The sad part is over! Now the story takes a most unexpected turn. You'll like this.

I heard a big deep voice saying, "What are you going to do, Vasilii Vasilievich?" I thought it might be the Devil or Saint Mikhail, and I almost closed my eyes again, but something made me turn and look. And there, standing on the edge of the forest, was a man I recognized: one of our serfs, Grigori. He was leaning on his axe, just looking at me with his big pale eyes.

I said, if I recall correctly, "What?" and he said:

"You've lost your sisters! What are you going to do now? Your father will beat you, no mistake about it! Didn't he tell you to be the big boy of the family?"

I started to cry. "Oh!" I sobbed, "What am I going to do? I'm scared to go home!"

He came at once and crouched in front of me, looking me in the eye. He said,

"Hey, Master, don't worry! I'll tell you what. You and I have always been friends, right?"

Now, I don't think that was quite true, I think he'd been brought from another village not long before, but he'd done a lot of work around the house lately and gone out of his way to be friendly to me, even binding up my knee once when I'd fallen and scraped it. I just sniffled now and said "Yes." And he said:

"Well! I'd hate to see your mother and father kill you, Master, so I'll take you to a safe place I know of. The people are nice there. It's warm. There's plenty of food. They'll let you live with them and nobody will ever know what you've done! How about that, eh?"

I think I might have argued, but in the end I went with him. He took my hand and we walked away into the fairytale forest and I never saw the mortal world, as a mortal child, again. I have never been able to remember what happened to the bread.

Where did you go, worm? The porthole's silting up again. No matter; I'll just go on talking as though you were still there. Wouldn't you like to know what happened to me? It's really an extraordinary story. After all, I started

out in medieval Russia and here I am in a submarine in the year 2083, still alive. How did I become immortal? Did Grigori bite me in the neck? Certainly not! He wasn't that kind of a monster.

No, it seems my serf was in reality a cyborg posing as human, just as I am now, and once he had been a mortal child, just as I was then. But he'd been rescued from some sort of catastrophe that befell his village by another cyborg who just happened to be passing by at the time. What were all these cyborgs doing, running around Mother Russia? You might well ask!

There is a worldwide Company, worm, founded in the twenty-fourth century by scientists and investors, and it holds the secret of time travel. Time travel is difficult and dangerous for mortals, but if you transform a human being into a cyborg you can use the cyborg to run your more profitable errands through time, such as sending them to crowbar icons out of lovely old cathedrals that are going to be blown up by Bolsheviks, or make off with a czar's ransom in amber wall panels before the Nazis can take them. But I digress.

Where does this Company, this Dr. Zeus Incorporated, get the cyborgs to collect its lost treasures? Lost children, of course. Orphans are snatched out of snowbanks, out of burning houses, out from under the very hooves of Tatars' horses and whisked away to hidden Company bases where they're given the best of everything, educated and raised to adulthood. Oh, and converted to cyborgs, of course. It's a little painful, I have to admit, but you can't deny there are advantages! Super intelligence, phenomenal abilities, and of course immortality.

All you have to do is spend eternity collecting things the Company wants. And keep your eyes open for any likely children you happen to find alone and crying. Well, no, the little prospective cyborg must meet certain strict standards: certain physical type, certain character. Personally I've always thought Grigori was a bit sloppy, I don't think I was quite fit to become an immortal; but I was made into one anyway, so there you are.

Nan loves me as I am, at least. I've never understood why. . . .

I was programmed to be a Marine Operations Specialist, and as soon as I was out of school began my long and illustrious career of going down with ships. Yes! That's what I do, worm, I sink for a living! Ha ha. When History records that a ship will go down with a particularly valuable item on board—say a da Vinci notebook, or somebody's crown jewels or Stradivarius—it's my job to be aboard somehow, as captain or able-bodied seaman, and arrange to get the desired loot well sealed in a protective casing before the fatal storm or reef or whatever Fate has in store.

And then down we go, the poor mortals and I, to the bottom. I never like that part. I'm so sorry, you know, so sorry for them and there's nothing I can do at all, I can't save them. . . . And then, to blunder around in the dark like a bloated corpse in the hold, securing the loot, waiting with it until the recovery ships are dispatched from the Company, that's not the pleasantest job in the world either, but somehow that's what my career aptitude tests recommended!

But I can't complain, and do you know why? Why I'm a lucky man, worm? I'll tell you: I found Love.

Is that rare for a cyborg? Very rare, I assure you. You understand of course we're not emotionless creatures at all, not machines, heavens no! But the danger in loving mortals is that one faces inevitable tragedy: they must age and die, however much one cares for them. Yet somehow we im-

mortals never seem to form more than the warmest of platonic friendships amongst ourselves . . . I thought, until I learned otherwise.

I met and fell in love with an Art Preservation Specialist. Met her quite by accident, too, it wasn't the Work brought us together at all! And oh, worm, she's beautiful, she's kind, she's strong, much stronger character than mine. Fearless. And, do you know, we actually got married, my little darling and I? Sleek black lioness and clumsy polar bear, what a match.

We weren't supposed to wed, of course. The Company doesn't generally approve of marriages amongst its operatives. And of course it can't be marriage as mortals have it, we're parted for long periods of time. That's never mattered, though. We always meet again. And what exquisite bliss, that reunion, always. . . .

I wonder how long it will be this time. . . ?

But you want to hear an action story, don't you, big red worm? Yes, here you come, pushing your sucker-mouth across my tiny window, wiping clear an inch-wide view of Hell itself, the dark-glowing fumarole. Thanks so awfully much. I'm afraid I don't see much in the way of heroic action because I'm not much of a hero, am I? But I tried to be. Failed miserably, too. Here's what happened:

They call it the Sattes Virus, after the prison where it first broke out. Some form of hemorrhagic fever, symptoms vomiting and voiding of blood, attacking the intestines and spleen, killing the host within hours. It killed every single inmate and guard at Sattes Men's Colony in Montana, United States of America. Then it spread to the families of the guards; and then it stopped.

Before anyone could draw breath in relief, it had broken out in two other prisons, one in Utah and one in California. It followed the same pattern there, exactly. Within twenty-four hours it had broken out in prisons in Arizona, New Mexico, British Columbia. Within a week it was in prisons all over the world. How is it transmitted? Plenty of theories, but no real evidence. This was just a month ago, worm.

And do you know what the mortals did? They smirked. Just imagine, the criminal element wiped out in a week! Why, it was almost like a judgment of God. Never mind that men and women serving a week's time for traffic violations died too, and there were a great many more of those than serial killers sitting in cells. It *must* be a judgment of God.

But even as it ran its course in the prisons, it started in the armed forces of the world. Broke out at military bases, on battleships, in Civil Defense training camps. That wiped the smiles off their faces! Millions of young men and women dying the world over. Perhaps it isn't a judgment of God after all? The death toll is amazing, surpassed the Black Death in its first week. It kills so quickly, you see! And nobody knows what to do.

Though certain things are obvious: groups of people living crowded together catch it, men catch it more easily than women. Age is no barrier, neither is race or location. There are theories: testosterone somehow linked? Schools have been closed, public assemblies forbidden, all the usual stuff governments do during a plague, depressingly familiar to us immortals but quite shocking to the poor little mortals who had somehow assumed that living in the twenty-first century exempted them from disasters of this kind. There has even been a resurgence of millennial paranoia: perhaps the count was off by eighty-three years, somehow?

And of course everyone working for the Company knows that's not the

case at all. We all know Sattes won't bring on the end of the world, that it will disappear as quickly as it began, that no cure nor any cause will ever be found. Business as usual will continue for the human race. Well, not quite as usual . . . the human gene pool will be gravely diminished.

Now, when all this started, where was I? In the Russian Navy, of course. Posted to the Gorbachev Science Base on Avacha Bay. Heroic Lieutenant Kalugin waiting like an actor to play his part, with a worse-than-usual case of performance nerves.

You see, worm, here's what History says happened: that even with its armies and navies devastated, even as the whole world waited terrified and scarcely able to hope the dread epidemic had run its course, Russia bravely went ahead with its test voyage of a revolutionary new miniature submersible, the prototype *Alyosha*, powered by an experimental fusion drive. Future histories will characterize this as a supremely gallant gesture of hope for the future in a very uncertain time.

A doomed gesture, too; for the *Alyosha* has been lost and will never be recovered, taking that experimental fusion drive with her (we could only afford to build one, you see) (in fact we could only afford to build a little one, which is why it went in a submersible) and by the way her one-man-crew was lost as well, fearless Lieutenant Kalugin. I'll get a statue, worm, every bit as grand as Peter the Great's, me in bronze towering among the kiosks that sell vodka and shoe polish in Petropavlovsk-Kamchatsky. Ah, but I won't be lost, really. I won't, worm, and you know why? Listen closely.

Almost the first thing the Company discovered, when it went into this time-travel business so many ages ago, was that *History cannot be changed*. Recorded history anyway. But if you work within the parameters of recorded history, you actually have quite a bit of leeway, because recorded history is frequently wrong, and there are always Event Shadows—places and times for which there is no recorded history. See how it works?

So the Company decided that what would appear to be a tragedy could in fact be subtly erased. We could conform to the historical facts: I would volunteer for the mission, take out the *Alyosha* on its test run into the Aleutian Basin, transmit a distress signal and maintain silence thereafter, presumably lost in the abyssal darkness beyond recovery, for the Russians will never find even a trace of the *Alyosha* . . . because I'll have taken the *Alyosha* straight to a Company recovery ship waiting off Karaginskiy Island.

No death after all for valiant Lieutenant Kalugin, and the fusion technology won't be lost, but co-opted by Dr. Zeus Incorporated, which will be regrettably unable to give it back to its inventors because History cannot be changed. Still, humanity will benefit in the long run. We—

Mother of God and all the holy angels, what was that?

It can't have been a probe camera from the *Soter*. They can't have noticed yet I'm in trouble, and even if they had they couldn't get here so quickly! Could they? I don't think so, but then I'm in an Event Shadow, aren't I, worm?

It can't be pressure on the hull. It can't. This hull is made out of a new super-composite. We tested it. It ought to withstand much worse than this. I'm only a thousand meters down. Or, or, well, maybe it will give just a little and then no more? Flexing, not breaking? It won't collapse. Not with me in it. That won't happen, worm. Really.

I know what it was! The black smoker must have thrown out a chunk of rock or something! Yes, of course, just a bit of larger-than-ordinary debris

raining down on the hull. The rest of it is falling so softly, so silently, it might have been only a little pebble, and perhaps only sounded loud by contrast. Yes. We're all right, worm. No cause for concern.

Let's get back to our story, shall we?

The reason I'm sitting here, talking so desperately to you, worm, is, as you must have guessed, that *something went wrong*. All began according to plan, I bubbled away through the deep, reached the *Alyosha's* last known position, transmitted my last tragic message and then took off for Karaginski Island!

But three hours out, I lost forward propulsion. I began to drop. Tried to jettison ballast: no use! And down I went, down through water that grew ever-darker but not colder, into this previously undiscovered field of volcanic chimneys smoking out mineral-rich filth. Bump, down I came.

I've tried everything. It's not the fusion drive. That's still working beautifully, if pointlessly, not actually driving me anywhere. No, it seems to be a series of little malfunctions that have all compounded to make one very big malfunction, and as near as I can tell it's because a two-ruble bolt cracked and gave a valve more play than it should have had, so that it stuck in an open position . . . so much loving care was lavished on the wonderful new fusion drive that the rest of the *Alyosha's* construction was just a little shoddy, or so it seems.

Ironic, isn't it? Especially as I might have detected the problem if I'd done a routine scan before climbing in. I didn't, though. I was tired this morning. Sleepy. Hung over. See why mortals really needn't fear being conquered by a super-race of cyborgs? We can be just as stupid as they are.

Though you'd have been hung over too, red worm, if you'd been drinking what I'd been drinking for three days. A cocktail of my own devising: I call it a Moscow Bobsled. Chocolate milk and vodka. Goes down fast and then you crash! Yes, I know, it sounds horrible, but the Theobromine in the chocolate interacts wonderfully with the vodka. What was my excuse for getting into such a state? Well, you'd have been drinking too.

You see, my friends had died. You wouldn't know about that, of course. Red worms don't have friends, I suppose. Cyborgs really shouldn't either.

When the plague spread to Russia, it came from the west. Hit St. Petersburg first. All those training ships, all those mortal boys and girls. . . . Well, panicking, and drawing the obvious conclusion that it wasn't safe to crowd its armed forces together, the government hit on a desperate plan to salvage its remaining Navy.

The orders went out to Okhotsk, to Magadan, to Petropavlovsk-Kamchatka, to the island bases: empty the ships! Empty the barracks! Disperse and quarter the enlisted forces amongst the civilian population, or in remote areas spread out, and perhaps by the time the Sattes Virus had worked its way across Siberia it wouldn't be able to find new victims.

You can imagine the alacrity with which this order was obeyed, worm. The old ships emptied and sat silent at anchor, and truckloads of sailors were taken up into the mountains. Some of them went to old mining camps, old logging camps, hunting lodges; all kinds of places were pressed into service as emergency quarters. Some just took off into the woods with camping gear, happy to get a vacation and save their lives into the bargain, promising to stay in contact electronically. The officers were quartered at hot spring resorts all through Paratunka. Holidays for everybody! If only the Grim Reaper hadn't been expected to show up as well. Moving into his little

dacha amongst the stone-birches, checking his black robe and scythe at the changing-room door and slipping into the hot pool. . . .

The mortals didn't know what else to do. I didn't either, really, here we were two weeks from the date of my historic mission and everything was falling to pieces. I knew that most of the people at Gorbachev would survive the plague, because History recorded their names, and of course there was no danger to me; but what do you do socially when the Dies Irae is playing everywhere? How do you pass the time? Watch news on the Wire? Far too depressing. Go out for a drink at a cozy club? Not in a naval uniform, which in this dark hour marks you for one of the damned. Sit in your flat and play solitaire?

I did that, actually, until I got a call from the mortal Litvinov. He and I'd served together on the *Timoshenko*, before I'd been transferred; and guess where he was now! Ten kilometers out of Paratunka, sprawling at his ease in the private tub that came with his dacha! True, the dacha was a little ruinous, because the resort had been closed for years; but the hot water just kept bubbling, that was the great thing about these places, and Larisa was there, and Antyuhin was there, and there was plenty to drink, and wouldn't I like to come up for a visit?

I probably shouldn't have gone, worm. But my co-workers at Gorbachev were glad enough to see the back of me for a few days—they were all civilians, after all, and seemed to think that would protect them—so I spruced up and caught the tram out to Paratunka, and walked from there. I'd had some idea of renting a bicycle, but the road was impossible, steep switchbacks rutted and boulder-strewn, straight back into the mountains.

But at last, as the first cold stars were peeping through the trees, I heard the whine of a generator and saw yellow lights; and a minute or so later I was walking in under a leaning arch that had once proclaimed the name of this little resort. I couldn't tell what it had been, because a new sign had been made from a piece of cardboard and tacked up across the arch. It read:

SATTES SPA—YOUR HOST, BOCCACCIO

I walked in and stood in the central clearing, looking around uncertainly. There were perhaps a dozen little tumbledown dachas visible, all at the edges of the forest; half-a-dozen had lights behind the windows, and in some cases light streamed up into the trees through holes in the sagging roofs. There was a strong smell of dry rot and mildew, and all the damage that a mountain winter can inflict on a place like that, to say nothing of a vague sulphurous aroma. Still, the wind from the stars was cold and fresh. I could hear mortal voices in conversation, and music, and laughter. A fire had been lit in half an oil drum before one of the dachas: someone was grilling slabs of some sort of meat product.

As I watched, the door opened and a mortal man appeared, silhouetted black against the yellow light. Warm air steamed out around him. He wore only fatigue trousers, slippers and a bathrobe, and he carried a drink; and as he stepped out he was directing a remark over his shoulder to someone within the dacha:

"But that's exactly my point. How do we know museums aren't full of evidence that's been mislabeled—"

He noticed me and started.

"Hell! Christ Almighty, Kalugin, I thought you were a bear after our Spam!"

"Is that what it is?" I came close to the fire and peered in at the coals. Grilled Spam, all right. "Hello, Rostya Anfimovich."

"Good to see you!" Litvinov jumped down the steps and embraced me. "Did you walk all the way from the tram stop? Everyone, Vasili Vasilievich got here!"

There was a chorus of happy shouts from the interior of the dacha and in a matter of minutes I was soaking in the bath, mug of vodka in one hand and sandwich—grilled Spam between two Finnish crackers—in the other.

"Pretty nice, huh?" said Antyuhin gleefully. "And it's all ours! All we had to do was clean the dead leaves out. And, well, a couple of other things. We won't tell you about them."

"Thank you," I said, looking around. I wouldn't have been surprised to learn they'd had to clean a mastodon skeleton out of there. The little house was a wreck, and can't have been made of more than plywood and screens anyway; you could see stars through the roof and birds had nested in the corners. The floor was spongy and gave alarmingly under Litvinov as he stripped down prior to rejoining us in the tub.

"And it's the Junior Officer's Mess of the *Timoshenko* together again!" said Larisa Konstantinovna, raising her tin cup. "For however long we have."

"No!" Antyuhin pointed a finger at her admonishingly. "No references to you-know. Back to our Symposium. We've got a Frivolity Symposium going, Kalugin, see? We're diverting ourselves with discussion on matters of no social or philosophical significance whatsoever."

"Current topic under discussion is whether or not Almas really exist," said Litvinov, splashing in beside me.

"The Mongolian Bigfoot?" I stared.

"I don't see how you can deny it, with the Podgorni footage!" challenged Verochka Semyovna.

"The point, you see, Kalugin, is: if any supernatural creature who shall remain nameless comes to judge whether or not we're ready to be taken to the Next World, he'll think we're a pack of hopeless twits and leave in disgust," said Antyuhin.

"And for that matter I don't think the possible existence of an unclassified hominid is a frivolous subject," Verochka said.

"What if they've been sighted in UFOs?" said Larisa.

"Good. . . ." Antyuhin nodded, frowning thoughtfully.

"Pilots or abductees, though?" said Litvinov. "That would make a difference, don't you think?"

"Only in degrees of absurdity," said Verochka.

I had another bite of my sandwich and listened, so happy. I love mortals. I love their bravery and their craziness, their ability to tell jokes under fire. I suppose it's something they have to develop, since they know their deaths are inevitable; but it's magnificent all the same, don't you think, worm?

We sat there talking for hours, every now and then getting up to run out, all steaming and pink, to the cold pool, where we'd plunge into black water to keep ourselves from heart failure, or at least that was the idea. It was full of floating leaves but Litvinov assured me it was clean water, in fact he promised to show me just how pure it was later. When we were sufficiently revived we'd race back to the dacha for more vodka and more tales of the paranormal. We covered ghosts, UFOs, persons with the ability to teleport, talking animals, visions of the Mother of God, and anything else we could think of in our attempt to repel the angel of death.

Now and again other crew members in varying states of hilarious un-

dress would stop in for a visit, making the rounds from their dachas across the clearing, usually bringing another bottle. Only once was there sadness, when the engineer Serebryannikov insisted on singing "The Last Night of the World"; other than that the stars shown down undimmed. It was long after midnight when we began to climb out and towel our wrinkled selves, and then to crawl into sleeping bags.

There was a slight social awkwardness then, because everyone was pairing off. Another gesture of defiance at death, I suppose, or perhaps just mutual comforting. I, by myself, was looking for a clean place to unroll my sleeping bag when Larisa approached me shyly.

"Um—Vasilii Vasilievich, you came alone . . . if you'd like—?" She made an including gesture at herself and Antyuhin. He looked across at me, waiting to see what I'd say as he unrolled their bedding.

"You're very kind," I said, bending to kiss her between the eyes. "But I'm a married man, remember?"

"Oh! That's right. Well, anyway—" She kissed me back, quickly, and hurried off to help Antyuhin. "Dream about your wife, then!"

And I did, worm. I did.

Next day we went climbing, Litvinov and I, and he directed my attention to the considerable beauty of the place with proprietary pleasure. Such trees! Such mountains! Such a beautiful land of fire and ice in high summer, worm. Such a wide sky. I wonder when I'll see the sky again? No point dwelling on that. No, I'll tell you how Litvinov and I climbed the trail above the ruined resort and came out above the most perfect little lake, green as malachite and clear! It was artificial, quite round within its stone coping, and fed by a wide pipe that emerged from the hillside above. Clear as glass, that water cascaded out.

"Here!" said Litvinov, "This is what I was telling you about last night. This is the reservoir they built to supply the dachas and the cold pool. See the snow on those mountains? This is snow-melt, can you imagine? Absolutely pure. It tastes wonderful!"

"This is the stuff that feeds into the taps?" I bent and scooped a little into my palm, doing a content analysis. He was right: quite pure melted snow and nothing else.

"Yes. Dozhdalev and I traced the pipes." Litvinov crouched down and cupped his hands to drink. "Aah! Good stuff. You know what I'd like to do, after all this is over? I'd like to come back here. Maybe trace title and see if the owners would like to sell. Of course, I haven't got any money . . . but, I'll tell you what I could do! I could offer to be caretaker for them, free of charge! And I'd quietly fix up the best of the dachas to withstand the winter. Scrounge lumber from somewhere or even learn carpentry and plane logs I cut myself, eh? And live by foraging and hunting, and selling pelts for ammo and propane. Wouldn't that be a great life?"

"You'd have everything you needed," I said in admiration.

"I would, wouldn't I? If Verochka wanted to live here too I'd really have it all." Litvinov looked out over his prospective homestead dreamily. "I'm a city boy, but I could live like this in a minute. If only the world wasn't being turned upside down. . . ."

"Well, you never know," I said. Even I didn't know, then. We immortals are told in a general way what the Future holds, but the Company very rarely gives us specifics, you see, worm? For all I knew at that moment

Litvinov might well survive to be living on salmon and bear meat in five years' time, a real pioneer of the post-atomic age.

For all I know . . . oh, worm, it's all very well to be hopeful but we immortals fall so easily into the habit of lying to ourselves. It's hard to resist. You tell yourself that the years aren't bearable otherwise and then the lies become a habit, more and more necessary, and eventually there comes a point where you run on the truth like a rock at low tide and it splits you wide open. Shipwrecked. Goodbye.

We walked back down the trail and to our surprise encountered a hiker coming up, a pleasant-looking little woman in bright outdoor gear. She smiled and nodded at us as we passed her and I started involuntarily: she was an immortal too! She winked at me and kept going, striding along uphill on tireless legs. I couldn't very well turn to stare after her, with Litvinov there; and after all it's not so unusual to meet another operative now and then.

I thought she might have even been on a vacation! The Company has promised they'll begin granting us such perquisites, you see, as we get further into the Future and more and more of our work for them is accomplished. It's been intimated that one day we'll even have lives of our own. Wouldn't that be charming, worm? Nan and I never parted any more, far from this sea that divides us. . . .

I left next day, after hugs and kisses all around from my shipmates; I would have preferred to stay, but I had that crawling sensation we operatives get when we're off the job for too long; all those programmed urges to get back to Work, I suppose.

So I walked back down to Paratunka and waited for the tram, and as I waited, who should come to wait too but the little immortal woman in her bright orange jacket! She smiled and nodded at me again. I looked around to be certain there were no mortals in earshot and said to her, in Cinema Standard: "I, er, noticed you up at the old resort."

Well, so I'm not a brilliant conversationalist, worm. But neither was she: she just smiled her unfading smile and said: "Yes. I was doing my Work. It's very important, you know."

"You're a Botanist?" I said.

"Oh, no," she said. "Nothing like that. I have to be sure all the mortals are all right, you know."

Well, now I really had a crawling sensation, worm, because that was rather a strange answer to have given.

"Ah," I said carefully, "You mean you're an Anthropologist?"

Her smile never dimmed. "Uh-uh," she said. "I just take care of the mortals."

I suppose at a moment like this mortals feel their hearts pounding, find their breath constricted, feel icy chills. Heaven knows I did! All I could think was, *Not again.*

But, oh, yes, again. What had happened, you see, was that I had stumbled on another Defective.

What's a Defective, worm? Well, officially they don't exist, of course; but the truth is, when the Company was learning how to transform human beings into immortal creatures with prodigious strength and intelligence, it didn't learn how to do it all at once. No indeed. It took a few tries to get the Immortality Process right. Unfortunately, the Immortality part was the first thing that worked; so the first few deeply flawed individuals produced

were permanent problems. What do you do with an idiot who's been given eternal life? Or a psychopath?

Dirty little secret, eh? I'd only learned about their existence because I'd had an unlucky encounter with one back in 1831, a pleasant-seeming fellow the Company was using as a courier. He was just intelligent enough to deliver packages and as long as he was kept continually on the move doing that, his other personality problems weren't apparent. But, surprise! On a routine mission to bring me some botanical access codes I'd requested, his clerk had neglected to program his next posting; and I was treated to a harrowing two days with a very unpleasant fellow indeed.

So I knew all too well what a Defective looked like, sounded like, worm; and here was one seated next to me on the tram bench in Paratunka.

Oh! Oh, holy saints. That was another rock, wasn't it? You can see out there, worm, tell me it was another rock, just a little harmless one plunking down on the *Alyosha's* hull. Yes, thank you, you've taken a lot off my mind. You're doing a splendid job clearing the porthole, too, by the way. I can see so much farther now.

Where was I? This Defective I had met. She looked like some sweet little babushka with a preternaturally young face, gave an impression of being slightly hunchbacked, though I think this was because of the way she carried herself, bent slightly at the waist and rocking to and fro. Her smile was complacent, all-wise, all-knowing, tolerant. You might think, looking at her, that she had achieved great wisdom. I need hardly add, worm, that we correctly functioning Immortals never smile in that way. We're too exhausted. . . .

At least I am. Frightened, too. My instinct was to grab my luggage and run all the way back to Petropavlovsk-Kamchatsky, and the tram could follow any time it liked. But I smiled back, to avoid offending the creature, and I said: "You take care of them? That's very kind of you."

"Yes," she said, nodding again. "You know what happens if they don't get their vitamins, after all."

"That's bad, is it?"

"Oh, terrible!" Her face wrinkled up comically. "There'll be too many of them and they'll starve! Poor little things."

"We certainly don't want that to happen, do we?" I said.

"No," she said, and then her face changed. I tensed and clutched my bags, ready to bolt; but she lifted her head with a queenly expression and regarded me coolly. And I tell you, worm, she was somebody else entirely then.

"I don't believe we've been introduced," she said.

"M-marine Operations Specialist Vasilii Vasilievich Kalugin, at your service," I said, trying to get the words out without my teeth chattering.

"What an awful lot of names you have," she said. "I'm Nicoletta."

Just Nicoletta.

"Pretty name," I said, like an idiot. "You weren't Russian, then?"

"No," she said. "There weren't countries when I was made. I'm very old, you know. I've traveled a long, long way. Traveling all the time. Oh, look; here comes a tram."

Yes, thank God and all His angels, it was the tram at last, and we boarded, and I ran to the back in childish terror that she'd follow me; but she didn't. She rode only a short way and got out at the next stop, another little resort town. As the tram rolled away, though, she looked up and caught my eye: and she smiled for me again, that serene and knowing smile.

I congratulated myself all the way home that I'd escaped another night-

marish confrontation with a Defective. I went up to my flat, put away my things, took out a frozen kulebyaka and heated it through, and relaxed in front of the Wire screen to catch up on the news.

It wasn't good news by any means, worm.

The plague had jumped clear across Siberia in the time I'd been gone, and had already broken out in Okhotsk. No sign of it in Vladivostok or Japan yet, but that was anticipated. Depressing. I mailed the personnel coordinator at Gorbachev to let her know I was home again, I fixed a drink, and put on a disc to watch Pitoev's remake of *The Loves of Surya*.

I woke late, roused by the commotion at my door. Nobody was knocking on it or anything like that; it was being sealed. I could hear the hiss of the extrusion foam being jetted into place.

"Er—excuse me!" I came staggering out in my pajamas and gaped at the blank door lined in pink foam. A note had been pushed through at the bottom. I picked it up off the mat and read a hastily printed note informing me that I was under quarantine by order of the city council.

"Miron Demyanovich," I shouted, hoping the superintendent was still within earshot. "Why am I being quarantined?"

There was silence for a moment and then he shouted: "You just came back from Paratunka!"

"Yes, well?"

"The news just came through! It's started there!"

"Oh," I said. Well, I had known it would happen, hadn't I? History records that the Sattes Virus wiped out the armed forces of the world.

"I'm sorry, Lieutenant Kalugin! God have mercy on you!"

"That's all right," I said numbly, and went in to fix myself breakfast. I think I must have sat there staring into my coffee for an hour, worm, before I got the courage to get up and check my mail.

Three messages, and they had all come in in the last half-hour. One was an electronic version of the note that had been slipped under my door, simply the official notification that I was under quarantine until one week from the present date. If I were still alive and well at the end of that time, I was to notify the proper department and they would process my petition for release.

The second note was from Gorbachev Science Center acknowledging my return and telling me that the *Alyosha's* test launch was being postponed four days due to the outbreak, and requesting that I please inform them immediately in the event of any problems I might have with this schedule. Ha ha! I composed a brief reply informing them of my present scheduling conflict and assuring them that if I were still alive in a week's time I would report for duty at the appointed hour.

The third note was from Litvinov. It was very simple, worm, it told me what was happening. Serebryannikov and Verochka were gone already; many of the others had begun to manifest symptoms and were expected to go soon. Litvinov was sorry and hoped I had better luck. If anyone survived he, or they, would write again in a couple of days.

But I never heard from any of them after that, worm, though I sent messages every day all that week.

Oh, worm, I'm afraid their Frivolity Symposium must have backfired; Death must have come to inspect them and decided he'd be unlikely to find a more gallant crew anywhere, and conscripted them immediately to join the hosts of Heaven. Don't you think?

But so much for Litvinov's dream of homesteading that tumbledown re-

sort, so much for dear Larisa with her bright smile, so much for crazy Antyuhin. . . .

I cried, like the miserable weak creature I am, cried for hours. Only with terrible effort did I refrain from mailing Nan; why sadden her with my helpless misery? The less she knew about this posting of mine, the better. I watched through swollen eyelids as the Wire broadcasts got more grim. Paratunka was devastated. The rest of Kamchatka got off fairly easily, but then as expected the plague traveled down to Vladivostok and so through Japan. There was some desperate hope that Korea and China might escape, that it might move on south, but no; after it had finished with Japan it turned, as though purposefully, and started in on Korea.

*As though purposefully.*

I'm not sure now exactly when I began to form my theory, worm, but there was a point where I set aside my drink and made a conscious effort to sober myself up by the dull blue light of the Wire. When I had converted enough of the mess in my bloodstream into sugars and water I looked at my idea again. Nicoletta?

What had she said? That she was looking after the mortals, giving them their vitamins so . . . so there wouldn't be too many of them? What could she have meant?

She had been hiking up toward the little reservoir when I'd first seen her. She'd been working her way through the Paratunka Valley, giving the mortals their—vitamins?

What was she doing, worm?

She was a Defective! And it occurred to me then that Nicoletta might have got some horrible idea in her head that the Sattes Virus was a good thing—after all, a lot of mortals had thought just the same, when it was only attacking prisons—and decided to help it on its way, lest the world overpopulation problem continue. How easily one person with Immortal abilities might slip over borders and do such a thing, I knew all too well. Traveling all the time . . . and the pattern of deliberate infection would be detected even by the mortals, there would be countless theories afterward that the Sattes Virus had been part of a plot to reduce the world population by taking draconian measures.

Most historians would decide that the prime suspect was the extremist Church of God-A, who preached drastic population reduction, though nothing would ever be proven. But what if it was one Defective with a big idea in her faulty little head? Dear God, I thought, I've got to warn somebody! She's got to be stopped!

Ah, but, you see, worm, there was a little problem here. Officially there are no Defectives. The Company won't admit to them. When that business with Courier had to be cleaned up, the Company sent in a covert operations squad; and I was told as clearly as they could tell me in oblique phrases that nothing had really happened and I was never to tell anyone that anything had. The Company has never made any Defective operatives! So whom might I contact with my warning?

Obviously the only safe thing to do would be to contact Labienus, the Northwest American Section Head at Mackenzie Base. He, after all, was the very one who'd been sent to deal with Courier's little accident, he was the one who'd delivered that so-delicately veiled threat to me as he'd departed; surely if discretion were called for, I ought to contact Labienus and none other. Don't you think, worm?

So I sat down at my keyboard and, after agonizing deliberation, composed the following communication: "Dear Executive Facilitator General Labienus, you may recall me from the year 1831 at the Fort Ross Colony, when we had occasion to speak. I understand you are doubtless a very busy man, but I should like very much to discuss a matter of mutual interest at your convenience. Respectfully yours, Marine Operations Specialist Kalugin."

Beautifully circumspect and tactful, don't you think, worm? I thought so. And it must have worked, because within the hour my terminal beeped on a shrill frequency inaudible to mortals, had any been there with me, announcing that a message was coming in on a secured channel.

I interfaced hurriedly with the terminal. *Kalugin receiving*, I transmitted. And there came his signal, quite clear and even slightly cordial in tone:

*Marine Operations Specialist Kalugin? Labienus here. What is this matter you wish to discuss?*

So I explained, worm, as quickly as I could. I told him all about Nicoletta and my suspicions. He heard me out patiently and his signal, when he replied, was grave and thoughtful.

*Yes, Kalugin, there's no question you did the right thing by contacting me privately. I appreciate your discretion. Very well; we'll have her picked up immediately for interrogation. You understand, of course, that you'll need to distance yourself from this unfortunate situation?*

I answered that I understood perfectly! My only concern was whether or not it would impact on my mission. Labienus assured me there was no need to be concerned on that account and—

HEY! HEY, I'M HERE! THANK GOD, THANK GOD, THANK GOD! You see, worm, you see? I told you! Well, you've been wonderful company and I truly appreciate all your efforts on my behalf, but I'm afraid I won't be able to finish my fascinating story. I'll be on the *Soter* in an hour or two, or possibly three, I've rather lost track of the time, and I think I'll take a hot shower first—silly, isn't it? With all the hot water I've been in lately, you'd think I'd have had enough to last me for a while, but actually sitting here under this black smoker has given me the most awful creeps, watching the sooty stuff rain down endlessly, I feel as though it's all over *me* somehow and not just the hull of the *Alyosha*.

I'll request a weekend leave after this, I've got one due me, I'm quite certain, and I'll go to Nan. Perhaps we'll go somewhere together. Marseilles, perhaps, or Casablanca! Somewhere full of sunlight. I want sunlight, I want it by the bucketful, I want to walk in the warmth and the clean dry air and lie down in the yellow sand with her. She'll make the nightmares go away. She can always make them go away. I'm never frightened when I'm with her, worm, I—

What are they doing back there?

What—?

They're removing the fusion drive. They're cutting it out with welding torches. They're not answering my transmissions, worm.

Well, don't be silly, of course they've got to be Company operatives! Mortal divers couldn't work at this depth! It's a pair of Security Techs in pressure suits, I'm certain. And they're taciturn fellows, everyone knows that, so perhaps they're just too busy to respond.

Oh. . . .

And now they've gone.

They've left me here.

Why would they do that, worm?

Well, it seems I'm to impose on your hospitality a bit longer, worm. I'm really terribly sorry; I can't think what's happened. Unless the *Alyosha* with its fusion drive was too heavy for the winch on the *Soter*, and it was decided to bring it up in two dives? Yes, undoubtedly. And I'm sure the reason they weren't hearing my transmissions was the mess that's all over the hull from the black smoker, it must be full of metals in solution and that's somehow blocking my signal. So. I suppose while I'm waiting for them to come back I'll finish my story, shall I?

Labienus told me to go ahead with my mission, you'll remember. And that's exactly what I did; waited in my sealed room a whole week, while the Sattes Virus spread into China and Indochina. I stopped tracking its progress after the first few days. Too depressing. History records that the plague hit China and India particularly hard. I didn't need to see the Wire footage to know what was happening. No, I lived off my cupboard shelf and out of my freezer, I watched film after film after film, I drank like a fish and occasionally sobered myself up long enough to send hopeful little communications to my colleagues at Gorbachev letting them know I was still alive.

They let me know they were still alive, too. The decision had been made to go ahead with the launch, as I had known perfectly well it would be; and the Director intervened on my behalf with the city council and the result was, I was spared a lot of bureaucratic delay; at the end of that week Miron Demyanovich was duly authorized to break the seal on my room. I was sitting there, shaved and combed and in uniform, when I heard the seal being cracked away and then the timid knock; and I opened the door to behold Miron Demyanovich with a Biohazard mask over his pinched face, and two frightened-looking councilmembers behind him.

I was manifestly alive and well, so they let me go. I reported to Gorbachev Science Center and underwent a series of tests, from which it was deduced that, yes, I was still alive and well, or at least alive and hung over. Then they stuffed me into the *Alyosha* rather hurriedly and I kept my appointment with History.

And this is where you came in, worm.

Well, that was tidy, I must say; the oxygen is almost gone. How nice that you got to hear the whole story.

If it is the whole story.

I can't help feeling a certain nagging discomfort, worm, about one little thing.

If I was right about Nicoletta—and Labienus seemed to think I was—where did she get the Sattes Virus culture to put in unsuspecting people's water supplies? How did a poor simpleminded Defective manage the steam-roller logistics of that sweeping outbreak?

So many people died, worm, were killed *discriminately*. It's going to drastically affect the course of History. There won't be any full-scale wars for decades (except in Northern Ireland, of course) and it will be a century before the crime rate even approaches its previous figures.

It'll be a much more peaceful, law-abiding, uncrowded world after this, worm. That's going to be good, yes? The poor stupid mortals will think so at first. But, you see, their gene pool will be cut so drastically. All those young men, young women gone. Most of a generation. Never so many of them after this. Less and less every year. And then, the next time a plague hits. . . .

Won't affect us, of course. We're immortal. We'll go right on collecting things for the Company. Company will still be around. Plenty of us immortals still around.

Company wouldn't do a thing like this, worm. I'm positive. We're ethical creatures, for heaven's sake! Programmed to look after them. Take care of the poor mortals.

Though some of us have a rather low opinion of them. It's a job hazard, worm. Despair. Watching them kill each other senselessly over the endless ages. Overbreeding and famine. Some think they're too stupid to learn better. Monkeys ought to be penned up, supervised for their own good. Not allowed to . . .

I don't feel like that, of course. It's not their fault. Capable of such wonderful things, too! But I know some immortals who think . . .

Oh, God and Saint Mikhail, what if one of us . . . what if Labienus . . .

Hello, Dunya. Hello, Sima. You want me to come out there to you? Isn't this enough for you, that I'm down here under the water with you at last? And I'm with you to stay, I think. I don't believe I'm ever coming up again, not now. I stumbled on something I shouldn't have seen. . . .

But I won't go out to you. The black smoker's so dirty. Dark and wet and dirty. It's burying me under dirty little secrets and soon not even you will be able to get to me, with your reproachful faces, not even my friend the worm will be able to help me.

Oh, but that makes you angry, how Papa's eyes flash, and he's lifting his giant hand and it's coming down now with the bloodstone ring on his knuckle and it will do more than black my eye this time, I'm sure . . . but it's not the bloodstone after all, it's become an aquamarine. How strange, and what a beautiful color the stone is!

I can't take my eyes off its pure light and in fact I'm floating up toward it now, I've been accidentally netted. They're dragging me through the shallows, because the wreck wasn't deep, now I've left the rotting hulk down there below me but I shouldn't be here, should I? Here where I first met my beloved? What's gone wrong with Time?

Yet I bob up into the bright air. I behold a lovely picture, the water and the sky bright blue and the lateen sails like old parchment, and golden cliffs in the distance, and very surprised black faces regarding me from the deck of the fishing boat.

I struggle free of the net but it's a mistake, because the water's claiming me again, I'm plummeting back down into depths of sea the color of Spanish glass. No! I'll swim, I'll make my way to the shore because I know she's coming to meet me, she's heard my distress signal! I must meet her, up there in the sunlight.

I blunder up out of the surf, soaked and sick and exhausted, but it's all right because I see her now! Nan! On a long curve of golden sand, under swaying palms, seated in majesty on the tallest camel I've ever seen, the tiny goddess carved of blackest jet. My Queen of the Night with her eyes like desert stars, veiled in a blue that puts the sky to shame. She extends her little hand to me. I reach, and reach, but I can't seem to pull free of the water, my legs are like lead, and in my ears ever louder is the roar of breakers on the Moroccan Coast. ○



**WRAP UP  
YOUR  
HOLIDAY  
GIFT  
GIVING**

This holiday season give a gift the science fiction fans on your shopping list will enjoy all year - a subscription to **Asimov's Science Fiction!**

Each issue is filled with page after page of fascinating stories and articles for a whole year of entertainment.

A one-year gift subscription is only \$29.97 - *you'll save more than 25% off the regular price!*

To charge your order by phone, call toll-free 1-800-333-4108

or complete the coupon below and mail to:

**Asimov's Science Fiction**

P.O. Box 54033, Boulder, CO 80322-4033

**Send gift to:**

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ ZIP \_\_\_\_\_

**My name:** \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ ZIP \_\_\_\_\_

**12 issues (1 full year), \$29.97 2X9C**

☐ Payment enclosed ☐ Bill me

☐ Charge my ☐ MasterCard ☐ VISA

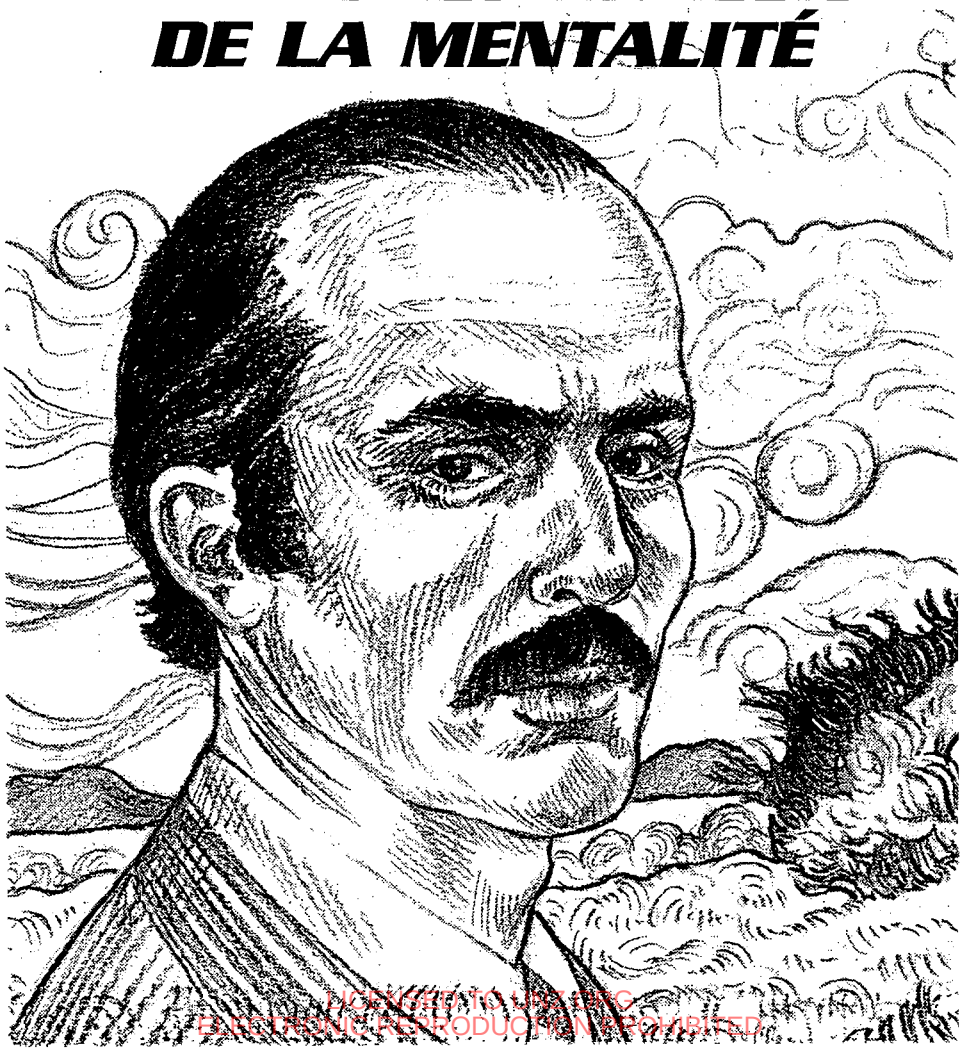
Card number \_\_\_\_\_ Exp. \_\_\_\_\_

Cardholder's signature \_\_\_\_\_

Please allow 6 to 8 weeks for delivery of the first issue. Outside U.S.A., add \$8 postage per subscription (U.S. funds only, payable with order). For additional gifts, please use an additional piece of paper.

Jim Cowan

**THE TRUE STORY  
OF PROFESSOR  
TRABUC AND HIS  
REMARKABLE  
VOYAGES ABOARD  
THE *SONDE-BALLON*  
DE LA MENTALITÉ**





Jim Cowan is a physician executive who attended Columbia University's School of Public Health on W. 168th Street. He tells us that "If you search for a long time through the labyrinthine corridors and offices at Columbia-Presbyterian Medical Center, you might find the actual lab where Trabuc worked before his disappearance. It's exactly as described in the story except that the wooden steps have been removed." Mr. Cowan has sold stories to *Century* and *The Year's Best SF*. His philosophical new tale is his first story for this magazine.

---

Illustration by Laurie Harden

I have a gift for you. It's nothing much. Just this computer disk.

Look, I'll put it here on the table while I tell you a story. The story will explain the gift, but you'll have to listen carefully because what I'm going to tell you is very hard to believe, but logical and completely true.

My story's about a man called Trabuc. It begins five years ago, here in Manhattan, on the evening of August 14, 1992. That was the evening I first met the professor. It was a Friday, very humid, and I remember the date because it was the second anniversary of my wife's death.

I was very lonely after she died, and Friday evenings were the worst. We were married for thirty years, you see, and we always went out together on Friday evenings, just to enjoy each other's company at the end of week.

Anyway, on August 14, 1992, I took the C-train north to 68th Street and walked east across Central Park, toward the Metropolitan Museum of Art. Friday evenings alone in our apartment were too miserable, so I often took my loneliness out for an hour or two to nurse it in some public place. I didn't know what else to do.

That evening, a sheet of low cloud trapped all the day's heat and reflected a sickly yellow light down on the city. Halfway across the park my back was damp with sweat. When I climbed the steps to the Museum and went into the atrium—the Great Hall of the Museum which is a vast open space under three high domes—the cool air and the sudden chill of sweat on my back was refreshing, like the surprising splash of baptism.

I slipped through the churning crowd. Since my wife's death I felt increasingly out of place—an old man alone, a retired teacher of English literature who'd spent a lifetime with the Romantic poets—and now was getting by on a small pension and his wife's life insurance. The feeling was worse here amongst the crowd of middle-class couples, the young tourists from Asia, and the self-confident students in their sweatshirts and shorts, all with futures. So I climbed the narrow stairway quickly and hurried to this very balcony where we're sitting.

My wife and I would come here on Friday evenings and sit at one of these little gilt tables with the same red tablecloths, drink a glass of wine or two, and listen to the string quartet. We liked a table by the balustrade the best; they're more private. She had high cheekbones, dark hair she wore tautly like a ballerina, and a wonderful sense of fun.

On Friday and Saturday evenings they always have the string quartet here, or sometimes it's a pianist, and the music rises into the domes like an offering. I think it carries some of our suffering with it.

Here's the young waitress to take our order. You'll have a glass of wine with me? Good.

Now, five years after she died, I remember those moments here with my wife as the most civilized of all our life here in Manhattan. Later we might go to see a play, or to the opera, or sometimes we'd go to dinner, just the two of us, and talk and talk, because being together was all we needed to make us happy, and happiness is all any of us really wants.

But back to the story of Professor Trabuc. On that evening when I met him, I was sitting by myself at that table over there, the one right beside the marble balustrade. I sipped my wine and gazed down at the crowds below. Suddenly, a man sat down in the other seat at my table and said, "Do you mind if I sit here? My name is Trabuc." As you will see, from one of his voyages in the sonde-ballon he knew exactly who I was, and even what I was thinking, but that will be much easier for you to understand once I tell you more about Professor Trabuc and the Sonde-Ballon de la Mentalité.

Despite his French name and the French name he gave his machine, Trabuc didn't speak a word of French. He had been born in France during the second world war and then orphaned in some mysterious way. His parents were possibly Resistance fighters captured by the Germans, or perhaps they were Jews. Anyway, Trabuc knew next to nothing about his origins. He was simply another starving child found by a GI in some camp in Germany at the end of the war. The soldier brought the waif home to the Bronx where the boy Trabuc grew up into a real New Yorker, like me. So you must understand that when Trabuc told me that his machine was called the *Sonde-ballon de la Mentalité* he spoke in the robust English of New York rather than the graceful French that was his birthright.

He chose the name to capture the nineteenth-century origins of his invention. As you'll see, the sonde-ballon was a primitive machine from an age when explorers set forth in sailing ships, an age when engineers worked with wood and iron and polished brass, when electromagnetism was still mysterious, and when the mathematics of the infinities had yet to be legitimized by Cantor. But exactly why the Bronx-raised Trabuc chose a French name for his invention is a seemingly small mystery that later you'll see reveals an important truth about him and the strange worlds in which we live.

The first thing I noticed about the man who was sitting uninvited at my table was his dark mustache and beaked nose. Then I saw that the lips of his small mouth were flat and sharply demarcated from the flesh of his face. In my opinion, mouths like this are characteristic of determined yet sensitive and often very creative personalities. His cheeks were hollow with a network of fine red veins over each cheekbone. The darkness of his eyes was profound, and his eyebrows were black tufts he had obviously trimmed. His forehead was high, almost bulbous, drawing attention away from his receding hair. He was perhaps fifty years old and he wore a seersucker jacket of white and blue stripes.

Without waiting for permission to sit at my table, he said, "I'm here to see van Gogh's *Cypresses* one more time. It's a wonderful painting. Do you know it?"

"Slightly," I said cautiously, afraid that he would prove a bore. How wrong I was.

The painting is in the Met's permanent collection and I'd seen it many times. In the last year of his life, van Gogh painted a series of paintings of cypress trees: swirling olive masses of paint with a range of sinuous hills in the background, and a tumult of white clouds in a blue sky. Not wanting to seem morose, I added, "Did you know van Gogh was living in the insane asylum at St. Rémy when he painted that picture?"

"Ah, so you do know something of van Gogh." He seemed pleased, as if he'd conducted an experiment and confirmed a theory, which was exactly what he had done, but I didn't know it at the time.

He leaned toward me across the small table. "The year van Gogh spent in the Asylum of Saint-Paul-de-Mausole fascinates me. His regimen was austere: rest and quiet, and hydrotherapy, which simply means lots of baths. Van Gogh also got three good meals a day, which for him was a novelty because he had lived like a pauper for fifteen years, unable to sell a single painting. Like many geniuses, he wasn't really able to take care of himself in the way that ordinary people do with no effort at all. But more importantly, in the asylum his favorite drugs, caffeine and absinthe, were totally forbidden. His brother Theo paid for his stay there.

"In St. Rémy, for the first time since van Gogh left his parents' home, someone was taking care of him, which was what he needed. During that year in St. Rémy, he wandered through the countryside around the asylum and painted a masterpiece almost every day. He rolled these canvases, which now are worth about a billion dollars, and mailed them to Theo in Paris. Theo had to rent an extra room for storage because no one would buy them. Then van Gogh left the asylum and shot himself because he was nothing but a burden to his family."

We went and stood before van Gogh's *Cypresses* and wondered what he might have painted had he lived, and then we went to an east-side Indian restaurant for curry and cold Kingfisher beer. I was enjoying the company.

During the meal, Trabuc told me he was a tenured mathematics professor at Columbia. "I work at the fringes of philosophy, where it merges into mathematics, but I've drifted from the theoretical to the practical, sort of an engineer of thought."

"Artificial intelligence, thinking machines, that sort of thing?"

"No, more in the line of mental transportation. The basic idea's not hard to grasp. I started with the ancient philosopho-mathematical question: Where do ideas exist? Plato asked that one first and said ideas are eternal entities found in a non-material realm.

"Twenty-five hundred years later, in our own age, Rudy Rucker—I doubt you've heard of him but he's a science fiction writer, and an effective popularizer of mathematics—used the word *Mindscape* to describe Plato's non-material realm of ideas. By definition, the idea for everything you can think of exists in the *Mindscape*: the idea of me, of you, of this restaurant, of the cab that brought us here, of New York City, everything."

"Even the idea of the *Mindscape* itself?" Sometimes I surprise myself.

"Yes. The *Mindscape* includes itself. It also includes the idea of van Gogh's *Cypresses*, of all the paintings in the Met, and of all the paintings in the world, they are all to be found there.

"Of course, you and I haven't seen all the paintings in the world, but we know they exist both in the real world and in the minds of people who have

seen them. So the idea of every painting must exist in the Mindscape. In fact, all possible ideas, ideas of paintings, ideas of music, ideas of mathematics, ideas of everything we experience, everything we think, is all there in the Mindscape."

"So another way to think of the Mindscape is to say it is the idea that all ideas exist together in some mental space," I said tentatively.

"That's it exactly." He was pleased. "But there are two more steps. Clearly you can think of things that do not exist. For example, you can imagine what will happen tomorrow, or a thousand years from now. So the Mindscape also contains the future."

"But no one knows what will happen tomorrow."

"Right. So the Mindscape contains many futures. Actually, an infinite number of futures."

"And what's the second thing?"

"Well," he said slowly. "Can you imagine what might have happened yesterday, but didn't?"

"Of course. It might've been sunny, but it wasn't."

"So the Mindscape also contains an infinite number of pasts." He paused to let me begin to grasp the enormity of what he was saying. Then he smiled and added, "We mathematicians have a more formal, scientific name for the Mindscape. It's the Set of all Sets."

I'd read about set theory in *Scientific American*. One or more of anything is a set.

"Here's another way to get your mind around this outrageous idea," he continued. "Everything in the universe is made of interchangeable matter and energy. Right? This stuff is arranged, for example, into molecules of air that vibrate while the orchestra plays a Beethoven symphony. It's also arranged into the neurons in your brain that make you think the music is wonderful, and make you feel happy. So the Mindscape, which you can see now includes all human experience, all emotion, is really nothing but the sum of all possible arrangements of all the particles of energy and matter in the Universe, which is a very large number—about  $10^{80}$ ! or the factorial of ten to the eightieth power—not truly infinite, but big enough to make no difference."

The waiter brought our curry. Trabuc waved his hand at our empty glasses and two more Kingfishers came too. "One way to think of the Mindscape is to imagine it as a geography, a landscape of ideas. And this is where we get to the central idea of my research." Trabuc sipped his beer, watching my face over the top of his glass. He seemed satisfied that I was attentive so he put his glass down. "You can walk about in a real landscape, right?"

I nodded.

"And if you want to go faster then you use a machine like a bicycle. And if you want to go places your legs can't go, you use a more complex machine—a boat, an airplane, even a spaceship. Right?"

"Yes, sure," I said.

"Well, if you want to explore the Mindscape then what do you use?" The question was rhetorical for he answered immediately. "Your brain. You use your brain to explore the Mindscape! Right?"

I nodded. "So discovering new places in the Mindscape is what we call creativity."

"Exactly. But using your brain in the Mindscape is like trying to explore

the Universe on foot. What do you do if you want to travel to places your mind won't take you?"

"I don't know."

"Well, you use a machine."

"What kind of machine?"

He smiled at me.

"A computer?" I said, hopefully.

"No."

I wondered if he thought I was stupid for not following his explanation, but if he did he hid it well and said, gently, "You use a machine like the one I have invented, which I call the *Sonde-Ballon de la Mentalité*. Roughly translated from the French, the name means Probeship of the Mind-scape."

"Ah." I was totally lost.

He finished off his Kingfisher and then added, "Technically speaking, it's not an invention, it's a discovery. I didn't invent it because it was already there, waiting to be found. Nothing is invented, things are only discovered. Plato would have agreed."

Trabuc wiped his mouth with his napkin and said genially, "Why don't you come and see for yourself? My laboratory is on the Columbia medical campus, in the School of Public Health, on West 168th Street."

After I said I'd go, Trabuc added in a disgusted tone, "Years ago the Dean worked out a deal with the Neurosciences Department to get me out of the philosophy building on the Morningside campus. He thought I was a nut."

Of course, Trabuc already knew that I am not the sort of man who would accept an invitation and then not show up.

The following Monday was a cold, stormy day with gunmetal-gray clouds sweeping over the city. After lunch I took the A-train north to W. 168th Street.

That street is lined with the graceless buildings of Columbia-Presbyterian Medical Center, a whole block of tan brick monoliths streaked with the grime of the city.

Ambulances and police cars clustered around the Emergency Department entrance. Men loafed on the sidewalk while a line of women and children waited outside a door marked *Clínica*. A gust of wind swept down the street, swirling trash from the gutters into vortices spinning up towards the clouds. A white Styrofoam panel, perhaps blown from a construction site, floated on the wind like a magic carpet sailing above the turmoil on its way to some unpredictable destination.

The lobby of the School of Public Health was full of women and small children sitting on wooden benches. The air smelled faintly of vomit, diarrhea, and disinfectant. A young woman on the bench closest to the elevator held a laughing baby in her arms. The delighted expression on the mother's face spoke of something indestructible.

The elevator, an ancient machine, rattled all the way to the tenth floor. As Trabuc had promised, the door to his office was at the end of the dingy, tiled corridor.

I knocked but there was no answer. I pushed the door open and stepped into a tiny room about twelve feet by eight, with a black metal desk pushed against one wall. There was a worn office chair with castors and a padded seat patched with duct tape, bookshelves on two more walls, and a comput-

er on a typewriter table arranged so Trabuc could swivel his battered chair between his desk and his computer.

In the outside wall was a single sash window and underneath the window was a set of five steps built of unpainted wood. The top step was level with the window sill and, sitting on the top step like an elf was Trabuc, wearing khakis and a plaid shirt.

"Hi!" I said.

"They punish tenured professors who don't publish and don't get grant funding by giving them the smallest office on the campus. Next, they'll eliminate my position."

An instrument like a sextant lay on the desk. This device, of polished brass and glass, also had several electromagnets—shining copper wire coiled around iron cores—mounted at its center. Five knurled knobs, each with a mechanical vernier for fine adjustments, were linked to the cluster of lenses and electromagnets by fine brass gears and levers. Taped on the wall above the desk was a print of van Gogh's *View of the Church of Saint-Paul-de-Mausole*.

"The asylum was a converted monastery, twelfth-century Augustinian, as I remember. I've been to St. Rémy, you know, seen the landscape, the sky, everything. But it was a disappointment, merely a husk. Anyway, you're ready to explore the Mindscape?"

The Mindscape had seemed reasonable after a good curry and three beers. However, as I looked at Trabuc, perched on the top step of the incongruous wooden stairway, his ideas seemed preposterous. But he was a tenured professor at an Ivy League university, which probably counts for something, and I had promised to look at his machine, so I said, "Yes, I'm ready. Is that it?" and pointed to the sextant-like device.

"Oh goodness no. I think you'll find the sonde-ballon much more impressive than that mental sextant, but before we begin, please understand the sonde-ballon is like any other machine—you must know how to use it. You can't use a four-function calculator unless you know arithmetic and those who voyage in the sonde-ballon must be mentally prepared. So take a moment and read this." He handed me a three-by-five card.

There were five lines of text in capital letters, five straightforward statements about the relationship between the mind and the Mindscape. Like the solution to a puzzle, these five statements made the nature of the interaction between mind and Mindscape immediately obvious to me. I could see that Trabuc's ideas were clearly correct and I was eager to begin the voyage. Such is the power of thought.

"You've just seen the results of ten years' work," he said. "Not the details, of course, just the broad principles. Let me apply the details."

He sat at the desk and, with his elbows on the desk and his bulbous forehead resting on the tips of his fingers, he closed his eyes. The room grew darker. Outside the window, the gray sky grew even duller, as if a very large object were floating above W. 168th Street. Quite abruptly, something slid down outside the window, completely blocking my view of the clouds. A series of wooden planks, overlapping and slightly curved, sank silently past the window. The descent slowed. A stout wooden railing came into view and hung outside the window, swaying slightly.

Amazed, I walked to the window and stood beside the wooden steps. Something like the wooden hull of a boat, perhaps fifty feet in length, hung outside the window. I leaned out and looked down through the gap between

the brick window ledge and this wooden hull. The men were still loafing on the street, unaware of this huge object floating above their heads. Even the children waiting in line for the clinic didn't look up, pull on their mothers' arms, point to the sky, and shout.

"They can't see the sonde-ballon." Trabuc was at my shoulder, holding the mental sextant down at his side. "Right now, it's only an idea in our minds. Let's embark."

He climbed the wooden steps, bent his head to pass through the window and, as he swung himself over the waist-high railing onto the deck of the sonde-ballon, the image of the sonde-ballon rippled around him, as if he had passed through the surface of some invisible barrier, like a stone falling into a pool of water.

He turned to face me. "Come on," he said, stamping his foot, which thudded reassuringly on the wooden planking of the deck. "It's quite solid."

I climbed up the five steps and stood hunched up in the window. I felt the same as I do when I board a 747: it's ridiculous to think that hundreds of tons of aluminum, jet fuel, and human flesh can fly safely at thirty-five thousand feet.

I lowered myself gingerly from the windowsill until my toes touched the surprisingly solid deck of the sonde-ballon, but I clung to the sill just in case the illusion proved to be just, well, an illusion.

Hanging there, I could hear Trabuc chuckling behind me. I looked down. The deck was oak, worn smooth, with three very ordinary-looking copper nails at the end of each plank. Coiled neatly against the railing by my feet was a rope ladder.

I let the deck take my weight, slowly, but stayed close to the wall, just in case. I looked around. The wooden hull hung by thick cables from a cigar-shaped balloon over my head, perhaps twice as long as the hull itself, made of rough canvas. The cables were smeared with tar. This gasbag, which had perhaps once been white, was gray with age, blotched and stained as if it had made many voyages through wind and rain. There was a large patch of newer canvas covering a leak or an old tear, and a brass nozzle in the underbelly of the bag, presumably for filling it with gas.

In the bow there was a windlass, and trailing from it was a rubber-covered cable attached to a spherical object, about the size of a basketball, made of a network of cast iron. Inside this iron sphere, brass and copper machinery glinted in the sunlight.

The glinting brass and the shadow of the gasbag on the deck, made me realize that the weather had changed. Looking across the deck I could see blue sky.

"The sun's come out," I said.

"You're no longer on W. 168th St. on a cloudy Monday afternoon. What you're seeing is an idea of W. 168th St. on a sunny day." Trabuc was speaking to me from the stern of the vessel where he stood on a raised poop-deck. He was spinning a big, spoked, wheel expertly between his hands. The vessel swayed to and fro in the wind and the rigging creaked rhythmically. I grasped the railing, suddenly nauseated. Down below, the children ignored us.

"They still can't see us, but now for a different reason," he said. "Once aboard, the sonde-ballon is real, and they're nothing but ideas the sonde-ballon projects on our minds. Go down below and see the rest of the machinery. I'll plot our course." He pointed to an open hatch. I followed his direction and climbed down through the hatch.

Stretching to the front of the gloomy engine-room of the sonde-ballon were rows of glass accumulator cells connected with thick copper busbars. The air was sharp with the smell of sulfuric acid. Crude asymmetric electric bulbs that looked handblown lit this engine room. "The battery power's for the lights, in case the main system fails. We won't have to repair the engine in the dark," Trabuc told me later. He also told me the sonde-ballon drew its power from the Mindscape in some way. "Sort of perpetual motion," was how he described it.

Looking back from where I stood in the engine room there was a tangle of machinery: a six-foot copper armature spinning between two massive permanent magnets, five steel actuating rods driven by steel pins on a rotating steel drum that looked like the workings of a massive player-piano, and five quartz rods whose orientation could be changed by a complex mechanism of iron levers and gears that passed through holes in the ceiling of the engine room, presumably linked to the big wheel on the poopdeck. The quartz rods reminded me of H. G. Wells' time machine.

An iron shaft as thick as my arm disappeared through the stern of the vessel, and, in wooden crates toward the bow, were forty or fifty greenish glass carboys wrapped in straw.

The armature suddenly threw a shower of sparks into the gloom and started to rotate. The sonde-ballon lurched and a low-pitched throbbing began to rumble through the whole structure, which was swaying back and forth. This swaying motion, together with the smell of tar and acid and ozone, made me feel sick. I climbed on deck. "I need to get my sea-legs," I called to Trabuc.

"Keep your eyes fixed on the horizon. We're underway." He spun the wheel, the rigging creaked under the strain, and the whole bizarre machine heeled into whatever current of thought he had chosen for us to follow.

After a moment, my nausea passed. The sunshine was pleasant and there was a warm breeze on my cheek.

I leaned over the rail. A ghostly image of the sooty bricks of the School of Public Health floated fifty yards away. The light still shone from the open window of Trabuc's lab, but in a few seconds it faded as if it had been nothing but a mirage. We were floating a few hundred feet above a pleasant landscape of fields and rivers, trees and low hills that stretched to the horizon in all directions.

I made my way aft and climbed the short flight of stairs to the poop-deck to look over the stern-rail. There was a four-bladed propeller, perhaps thirty feet across, driven by the iron shaft from the engine room. The propeller was turning very slowly—once every two or three seconds—something to do with the viscosity of the mental atmosphere, according to Trabuc. The rotation was so slow that I could see the blades were of varnished wood bound with brass at the tip. The churning propeller was the source of the unrelenting throb.

"Where did you get this thing?" I said to Trabuc, shouting as if I were on a yacht at sea.

"I found it."

"But where?"

"Here in the Mindscape. Remember? I told you that everything exists here, so you can find anything, including all kinds of machines. Actually, there's an infinite number of them, machines that have been built, machines that will be built and machines that will never be built, they're all

here. Obviously, some of them are machines for exploring the Mindscape itself. Now some machines might be discovered in the future, but those are no use to me, because I wouldn't understand how to operate them. Others might be from the distant past, but they might look to us like primitive magic from the stone age. Some devices for exploring the Mindscape are nothing more than chemistry . . . you know, drugs . . . but that's too unpredictable. I needed something safe, something I could understand. Something like this." He waved at the sonde-ballon's gasbag and solid wooden deck.

"But exactly how did you find it?"

"The old-fashioned way. I used my brain, and thought for a long time. It's hard work, like walking up a steep hill. But think about it for yourself. Since I'd already realized that there could be a machine to explore the Mindscape in the Mindscape itself, I knew the machine must exist there. All I had to do was find it and make it come to my window, and, when I climbed aboard, just as I had imagined, the mental sextant was lying on the poopdeck here beside the wheel."

I had nothing to say. He was telling me something completely preposterous, but quite logical.

"This particular device is a device that might have been discovered by a nineteenth-century French scientist, but wasn't, or you wouldn't be so surprised this afternoon. It's powered by an electrically driven propeller, and navigates using crude electromagnetic principles. I've found that it's quite reliable. Before I found this one, I came across a steam-powered machine, something like a traction-engine, but fueling up with coal and water, and then having to shovel coal into a firebox on every trip, seemed like far too much work."

"Yes, I can see that."

"This sonde-ballon presents the Mindscape to us as a landscape," he said, waving at the fields below. "The Mindscape can look like anything at all, but it's easier to find your way around if ideas are represented spatially, if you see something that's familiar. If we were using an exploratory device from the stone-age, we might find ourselves walking across a savanna with spears in our hands, living in a world where wild animals and ghostly spirits represent ideas. If we used a device invented in the classical era, we might be flying with winged sandals over woods filled with nymphs and over lawns with marble temples for petulant gods. We might find ourselves in armor riding white chargers if we were to use a device invented in medieval times."

"And one from our own time might make us think we were racing through cyberspace."

"I like *this* machine. I find its worn look reassuring; if it's made so many voyages, surely it can make a few more safely. And it has a certain old-fashioned romance, don't you think? Here, try the wheel for yourself."

He stepped aside and I grasped the spokes, stiffly at first. The wind was pushing the sonde-ballon to the left and instinctively I leaned upwind to counteract the slope of the deck. I spun the wheel. The vessel was alive in my hands and under my feet. Yes, I could see myself as the captain of this vessel, expert in the winds and tides of thought, a bold adventurer. Trabuc was smiling at me, so I said, in what I hoped was a matter-of-fact way, "Exactly what is that landscape under us?"

"Speaking mathematically, all possible ideas are mapped onto that landscape. For every idea, there is one and only one point down there."

"So thinking, which is nothing but movement through ideas, corresponds to movement across the landscape?"

"Exactly. What you see below us is a tiny part of the infinite continuum of ideas, of all possible ideas. History, science, art, literature, music, mathematics, all human experience, all emotions, they're all down there. All good, and all evil too."

"Then let's go down."

"We can't. We're floating through an atmosphere that is both idea and reality. Like the wave-particle duality of quantum mechanics, this air is tangible or intangible, depending on how you interact with it. Down there is pure idea. If we land, then the sonde-ballon becomes nothing but an idea, and we will be fixed somewhere in the mental landscape, ideas for someone to think of in the future, maybe. But the idea of two middle-aged men like us flying over the Mindscape in an electrical airship is too preposterous. No one would ever think of that. From our own point of view, if we landed, we would die—fixed in the Mindscape like insects trapped in amber."

I glanced up at the patched gasbag.

"Don't worry," he said. "It's not hard to patch the bag, and those carboys down in the engine room are filled with plenty of spare helium."

I was still worried. It would take more than an infusion of helium to get us home if the gasbag developed a serious leak.

We floated on through the afternoon. Every now and then Trabuc would pick up his mental sextant to check our course. Months later, he showed me how to use the sextant. An ordinary sextant superimposes an image of the sun on an image of the horizon, relating the position of the sun to the Earth; Trabuc's mental sextant superimposed images from the Mindscape onto the user's mind, relating part of the Mindscape to things already known to the observer.

Trabuc had taught himself how to navigate in the Mindscape with this device, but navigation in the infinite realm of ideas wasn't easy. You were finding your way through the four dimensions of space-time, plus the fifth dimension of all possible versions of the idea you were looking at. He explained that this fifth dimension was a version of the physicist John Wheeler's many-worlds interpretation of quantum mechanics, but the details of his explanation escaped me.

The basics of navigation are quite simple. You set a course for the point in four dimensions of space and time where you think you might find the idea that interests you, focus your mind on the idea, and then use the sextant's fifth knurled brass knob to search for that idea. Or you can follow a chain of ideas in much the same way you might follow a river to its source. The verniers allow you to inspect the infinity of all possible versions of that idea. Of course, ideas are not discrete, they merge into one another, like eddies in a stream that give rise to other eddies, so the whole process is much more complicated than I can explain now. Anyway, that's why there are five knobs on the sextant, and five quartz rods in the engine room.

Trabuc didn't seem worried about getting lost so I put this possibility out of my mind. Apparently he could find his way to clusters of related ideas he already knew, but finding his way to things for which he had no mental image in his mind was extremely difficult. "Almost always, I end up somewhere I already know, rather than discovering new mental territory, which may explain why it's so hard to imagine something for the first time."

We were drifting over a field of wildflowers. "We're here," said Trabuc.

"As we descend, the ideas in this region will become more and more clear. Here, let me take the helm and I'll show you, but first you need to drop the anchor." He waved me to the bow.

Following his shouted commands, I found what he called the mental anchor—the sphere of cast iron ribs I had seen when I boarded. Inside this sphere were five brass and copper gyroscopes driven by electric motors. The whole device was attached to a thick black power cable that was wrapped around the windlass. The cable ended in a big knife-switch with copper blades and a white porcelain base ominously charred around the contacts. This switch was mounted on a copper bus-bar on a rack in the center of the deck.

"Throw the switch," shouted Trabuc. I closed it. A shower of sparks flew from the spherical anchor, the air was filled with the pungent smell of ozone, and the gyros whined as they built up speed.

Rolling the sparking anchor toward the gap in the railing that was obviously the place to push it over the side of the sonde-ballon was surprisingly difficult, due to the stabilizing effects of the gyros. After struggling for a minute, I got it over the side and it hung at the end of its cable a couple of feet below the edge of the deck.

I turned to look back at Trabuc.

"Winch it down," he yelled.

I released the pawl on the windlass and winched the anchor down until it hung about fifty feet below the hull of the sonde-ballon and about fifty feet above the ground.

"That's good!" he shouted.

The sonde-ballon wheeled around slowly into the breeze. I peered over the rail and saw the anchor dangling below us in the mental atmosphere of the Mindscape, somehow fixed above a single point.

Trabuc held his sextant to his eye and pointed it down at the field below us. He grunted, either with surprise or with satisfaction.

"Take a look for yourself."

That first time I took the instrument, and I remember being surprised at how heavy it was. I rested my elbows on the railing and held the sextant to my eye.

"Don't drop it over the side!" warned Trabuc. I tightened my grip.

"Point it at those blue flowers down there," Trabuc instructed me. "Each flower is an idea at the center of a cluster of related ideas." To my surprise the lenses were cracked. I could see a flower, greatly magnified, but the image was spoilt by a web of tiny black lines. My hands were trembling and the sonde-ballon was swaying slightly in the breeze, making the flower dance in and out of my field of view.

Whenever I was able to center the instrument on the flower for a few seconds I could see the detail of each blue petal and each white stamen with its hood of yellow pollen.

When I did so, the sensation was bizarre, schizophrenic. I was aware of the cracked image of the flower, but at the same time my mind was also filled with images of light passing through two slits and forming a pattern that I recognized from my one course in college physics as interference fringes. I remembered vaguely that the experiment was something we had done to demonstrate the dual particle and wave nature of light.

"Focus with this vernier," said Trabuc, guiding my hand. The image of the double-slit experiment disappeared and I glimpsed a series of equations

written on a blackboard, but just then the mental wind swung the sonde-ballon gently around its anchor and I lost the image.

"You were looking at aspects of quantum mechanics," said Trabuc. "This field of wildflowers is the sonde-ballon's representation of parts of what we call physics."

"It's too bad the lens is cracked," I said, handing the sextant back to him.

"It's not. What looks like cracks in the lens is actually fissures in the fabric of the Mindscape itself. I think the fissures are ideas that are inaccessible to the human mind. After all, there's no reason to think that our brains, which are not much different from the brains of apes shambling across the savanna, should be able to understand everything there is to understand. Some areas of the Mindscape are black oceans stretching all the way to the horizon. Who knows how big they are, or what's on their distant shores."

"Humbling," I said. Actually, I was a little relieved to find out that there were things even Trabuc couldn't understand. Perhaps reassured would be more accurate than relieved, for the fissures meant that there would always be mystery in the world.

"The network is particularly dense here in this field, so we'll never have anything like a complete understanding of quantum mechanics."

Later that day, he showed me some other things that interested him: a four-line proof of Fermat's Last Theorem, and a simple formula to generate all the prime numbers, the sort of thing that excites mathematicians, and then Trabuc said that we should return to his office in what he jokingly called reality. An hour later we were clambering down the wooden steps into his lab.

We made many more journeys into the Mindscape in the fall of 1992 and all through 1993. Trabuc made some modifications to the mental sextant, taping the insides of a programmable Texas Instruments scientific calculator to the side of the instrument. "I need more precision," he said, slipping a fresh AAA cell into the calculator. The circuit board was wired to five tiny servos he'd bought at a shop where they sold control mechanisms for model airplanes, and the servos were linked to the inner mechanisms of the sextant.

"If I'm right," he said, "we should be able to locate more than just eternal, abstract, ideas, we should be able to find our way through all the mental aspects of the human experience. The atmosphere in those regions will be more turbulent, because the ideas themselves are more fluid, and, unlike mathematical ideas that are completely consistent, the human experience is one of conflict."

With this warning, Trabuc set course for the crucifixion, wanting to both observe the event and discern its meaning, but, only a few minutes after we left W. 168th Street, black clouds hid the sun, gusts of wind howled in the rigging, and soon the sonde-ballon was being tossed about as if it were a toy. Trabuc lost his grip on the wheel and was thrown to the deck. The unrestrained wheel spun wildly.

"Help me!" he shouted through the gale. The light was fading fast, my heart was pounding and my palms were clammy with sweat. I felt sick and scared, but I clawed my way to the poopdeck.

A moment later, Trabuc and I were clinging to the wheel, struggling to keep the nose of the sonde-ballon headed into the wind. Behind us, the steady throbbing of the sonde-ballon's huge propeller assured us that we could ride out the storm. Then a series of lightning bolts flashed back and

forth across the sky and the last one struck the propeller, leaving the whole sonde-ballon shining in the night with the greenish glow of St. Elmo's fire. I was staring at the ghostly apparition of the shining rigging and the glow dancing over the gasbag above our heads when I realized that my hands were aglow too. Every hair on the back of my hands was standing up, and I felt the electricity crawling over my scalp. That was when the steady throb of the propeller stopped. The static had short-circuited the engine.

Instantly, the ship swung around and the gasbag was racing broadside before the wind, the hull dragging behind, and the deck suddenly tilted at thirty degrees or more.

"We'll just have to let it go," shouted Trabuc. "Lash the wheel. Then get below and help me fix the engine."

Running out-of-control before the wind, the sonde-ballon pitched and yawed less than before. I tied the wheel at mid-helm, crawled off the poopdeck, and made my way down into the engine room.

Acid was pouring from the tilted accumulators, making us cough and wheeze while we worked by the glow of the crude electric bulbs. The lightning strike had completely melted one of the thick copper busbars feeding the engine. The lights were dim because the accumulators had lost so much acid. Trabuc struggled to patch a new connection with heavy cable. When he finished, it was almost pitch dark in the engine room, but outside the storm had lost its force because the floor was level once again.

We climbed up to the deck. The night was clear, stars filled the sky in strange constellations, but when we looked down we saw that we were floating three or four feet above a jet black ocean of alien ideas. There were no waves on the featureless surface of this ocean, nothing but cold, cold blackness. This was an ocean of ideas our human minds could never, never comprehend. We looked up. The gasbag was dimpled like an old orange that's lost all its juices.

"Helium leak!" shouted Trabuc. The lightning or the force of the storm had punctured the gasbag.

I scrambled back below decks and I remember throwing straw out of a crate and rolling a heavy carboy of helium to the hatch. Trabuc had already clambered up the rigging and connected a canvas hose to the brass nozzle on the belly of the gasbag. I heaved the carboy onto the deck. Trabuc climbed down and screwed the fitting on the loose end of the hose to the neck of the carboy, and helium whooshed into the gasbag.

A single carboy made no difference, of course, and I was already rolling the second one toward the hatch. I knew that the sonde-ballon had to sink only a little further to touch the ocean surface and my life would end instantly. I had not planned to spend my last few minutes working like a stevedore hauling freight below decks, but there was no choice. By the time I'd rolled and heaved forty carboys onto the deck I was limp with fatigue, but the dimples in the gasbag were gone and the sonde-ballon was sailing several hundred feet above the still-ominous ocean.

Exhausted, we each took turns at the helm while the other slept, and many hours passed before we reached our mooring outside the window of Trabuc's office.

And many months passed before we took another journey in the sonde-ballon.

During those months, Trabuc spent long hours in the lab and I was left to

make little trips to the grocery store, the dry cleaners, the bookstore, and drag out the many other little domestic chores that I used to fill my dreary days.

I did visit Trabuc in his office from time to time. Sometimes the place smelled of beer and stale pizza, and sometimes there was a sleeping bag rolled in the corner.

I noticed he was getting thinner, his eyes more hollow, and these changes made his nose and the dark tufts of his eyebrows even more prominent. I was worried about his health, and also worried that he was making dangerous voyages on the sonde-ballon alone, although he assured me he was working on purely theoretical problems and would not make another voyage until he was sure he could avoid mental storms. "There's that and the entry problem. Nothing else stands in my way."

Then one spring day in 1995 he called and asked me to go with him. "I need your help to navigate. I think all my calculations are correct."

After the mental storm, of course, I had often wondered if my next voyage in the Mindscape would be my last. But I didn't have much to lose and I had already made up my mind that, if he asked me, I would go with him.

Trabuc was not in his office when I arrived. The sextant was lying on the bench and there was yellow sticky-note stuck to its brass frame. "Bring down the sonde-ballon and get aboard. I'll be here soon."

Concentration, nothing more, is required to enter the Mindscape so a few minutes later I was standing at the wheel of the sonde-ballon, inhaling the familiar smell of tar and acid and ozone, and waiting for Trabuc. When he clambered through the window and dropped down onto the deck he was carrying a old-fashioned leather bag.

"It's a portmanteau," he said, as if that explained everything, and put the bag neatly on the deck, beside the rail.

He let me stay at the helm while we sailed away from the idea of W. 168th Street. He took the sextant and stood in the bow, adjusting and readjusting the knobs, punching coordinates into the TI calculator, and all the time calling minute, detailed instructions back to me. An hour or more passed until finally he was satisfied that we had reached our destination. He winched down the anchor himself.

I looked over the rail to study the sunny landscape of fields and small houses, many with thatched roofs. There was a dark band of trees in the distance, and some low hills on the horizon under a bank of cumulus clouds. Otherwise the sky was clear and the sunlight was brilliant.

Below us was a country road.

"At last, the ladder," said Trabuc.

"What's going on? Where are you going?" I said, alarmed because he was obviously going to climb down into the Mindscape.

"It's all right. I've figured them out, both problems I mean. Have we seen any stormy weather? No. So I'm right on that one, and I finally understood what was obvious all along about the entry problem. By definition, you can find anything in the Mindscape, even places in the Mindscape where you can enter safely and find the thing you want. Just think about it."

Once again, his idea was preposterous, but logical, given the infinite nature of the Mindscape.

"Then where are we?" I asked. I knew the pitch of my voice was rising, but I could see I was about to lose the only friend I had.

"Where I always wanted to be," he said. "Don't you recognize this place?"

I looked down at the cornfield, at the distant trees, and at the low hills. The hills and the clouds shimmered and swirled in the sunlight, and, at that moment, even before he told me, I knew exactly what was going on.

With one hand on the railing, he said, "Suppose he'd lived on for many years? What about the masterpieces he'd have painted if someone had paid a few francs each month so he could stay at St. Rémy without Theo's help? Where are those paintings? Imagine them—flowers and cornfields, orchards and twisted olive trees, flowing hills, whirling skies—the simple blended with the subtle, each perfectly executed, each a masterpiece. Well my friend, they're all down there." He waved his arm across the landscape, and then he bent down, opened the portmanteau, and pulled out an old-fashioned, black frock coat.

Of course, I'd really known all along that this was his dream. And who can stand between a man and his heart?

I handed him one end of the rope ladder. He tied it to the rail and carefully lowered the coils until the last step hung six feet from the rutted surface of the road below us.

A crow flew across the cornfield. In the distance a hay wagon lumbered slowly out of the woods, moving in our direction. He put on his coat.

"Good-bye, and thank you for your companionship," he said in surprisingly formal tones that could have come from an earlier time. "I hope that in some small way I have distracted you from your loneliness." He shook my hand, then hugged me briefly, clambered over the railing and was about to start down the rope ladder when he said, "I almost forgot. My portmanteau, please!"

I went to pick up his bag but it was so heavy I could barely lift it and I had to use both hands to heave it over the railing. He took it from me, and I watched him clamber awkwardly down the ladder, holding the suitcase in one hand and grasping the rungs of the ladder in the other, his black coat fluttering in the wind.

When he reached the bottom of the ladder he paused and shouted up at me, "The sonde-ballon is yours. I know you will use it well. Adieu, mon ami!"

A few days later, I found the teach-yourself-French tapes when they asked me to collect his personal effects from his office.

He jumped down onto the road. Ripples spread through the stuff of the Mindscape, growing every second until the sonde-ballon was rocking violently, tugging at its anchor. The sudden swaying, the creaking of the rigging, and the smell of spilt acid from the engine room, alarmed me. I looked anxiously up at the gasbag but its surface was smooth and taut. Then the disturbance passed, and everything started to settle down.

I looked for Trabuc and found myself staring straight down on the top of his bald head. He had already set his suitcase on the ground. He was looking up into the air and then he waved. I waved back but I knew he could no longer see me because he was looking, ever so slightly, in the wrong direction.

"Adieu again," he shouted. "Use it well. I know you will."

"Adieu," I called, feeling sheepish because I don't speak French. He must have heard me because he turned a little, but he was still not looking directly at the sonde-ballon.

I watched until the hay-wagon arrived and he asked the driver something in French. A moment later he heaved his portmanteau into the wagon and

climbed up to sit beside the man. The wagon rumbled down the road and disappeared amongst some distant cottages.

I rolled up the rope ladder, winched the anchor to the deck, and went to the helm. A few minutes later the sonde-ballon was heeling into the winds of thought, heading for home. Not Trabuc's office, but my own home.

Ah, I can see you think I am mad. Well, if nothing else I've entertained you with a truly fantastic story, haven't I?

But if you look in the *New York Times* in 1995, you will find an obituary for Professor Trabuc, a mathematician and philosopher from Columbia University, whose smashed body was found on the sidewalk on W. 168th Street. People in the building told me he jumped from his office window.

But wait, there is one more thing. Perhaps two.

There is a van Gogh painting in the Kunstmuseum Solothurn in Switzerland. The painting is of a man who was van Gogh's attendant in the asylum at St. Rémy. A good man of uncertain lineage, a man who befriended van Gogh, a man who helped him carry his easel and his paints into the cornfields around the asylum of Saint-Paul-de-Mausole.

From the portrait we know the man's appearance. But we also have van Gogh's own description in a letter to his brother Theo. "A dark mustache and beaked nose . . . the lips of his small mouth are flat and sharply demarcated from the flesh of his face. . . . In my opinion, mouths like this are characteristic of determined yet sensitive and often very creative personalities. His cheeks are hollow with a network of fine red veins over each cheekbone. The darkness of his eyes is profound, and his eyebrows are black tufts that he obviously trims. His forehead is high, almost bulbous, drawing attention away from his receding hair. He is fifty years old and he sat for me wearing a jacket of white and blue stripes."

That attendant's name was Trabuc. He accompanied van Gogh on his trips into the countryside around St. Rémy. Part custodian, part companion, he watched while van Gogh painted.

Do you remember how I said that ideas flow into one another, like eddies in a stream? Unpredictable, the relationship of one eddy to another cannot be captured or explained, even in the language of mathematics, but nonetheless each swirling eddy gives rise to others and the water flows on and on.

Of course, the man in the painting is not the Professor Trabuc I knew. Oh no, it's not as simple as that.

You see, the Professor did not have merely a change of clothes in his portmanteau, he had money, and lots of it. Gold, judging by the weight of the bag when I heaved it over the railing to him. Later, when I went to his office, I heard a rumor that he'd taken all the money from his retirement plan, but no one knew why.

If the Professor's calculations were correct, he secretly pays the few francs a day needed for van Gogh to remain in St. Rémy, getting three meals and as much time to paint as there are hours in the day. In that world, van Gogh never leaves the asylum and never shoots himself. That's where Professor Trabuc went. But is it Trabuc the Professor, or Trabuc the Attendant, or some other Trabuc? There is an infinity of possibilities. Who can tell which one he chose?

But in the world he chose, I'm sure, through all the seasons, and down through the years, a Trabuc goes with van Gogh into the olive groves and

cornfields and the bright sunshine of the south, where the sinuous mountains heave themselves up from the plain, and the sky is a swirl of white and blue.

Van Gogh paints all this, and now and then Trabuc sees, really sees, this landscape through the eyes of van Gogh. Perhaps this Trabuc half-remembers, when he drowns under a shady tree while van Gogh smokes his pipe after their lunch of bread and cheese, he half remembers the sooty bricks of Columbia-Presbyterian, and how the Sonde-Ballon de la Mentalité brought him to the side of his beloved van Gogh, but I'm sure he puts those ideas out of his mind, not wanting anyone to think him mad.

But the evening is late, it's almost nine o'clock, the string quartet is finished, I doubt that the young waitress will refill our glasses again, and I still have one more thing to tell you.

Hmmm. I can see you're doubtful about my story.

I knew you'd be doubtful, of course, but I also know you're a good person and you'll use my gift well. How do I know that? Well, just think about what I've told you and remember that all ideas are accessible to the man at the helm of the sonde-ballon. Especially an expert like myself who's spent three years exploring the Mindscape, looking for . . . well, more of that in a minute. So I know not only everything you have thought, but everything you will think, and do, in the future.

So I know, I really know, that I can trust you.

Here, take my gift. The waitress is coming with our check.

No, no, no, the story is not the gift. Remember? The gift is this computer disk here on the table. Take it. It's yours. On it are all the instructions you need to find the sonde-ballon and use its mental sextant. Please, take the disk. I know it will be safe in your hands.

See, they are clearing the tables. They do close at nine, you know. I'm sorry to say I can't teach you to use your sonde-ballon in the way that Professor Trabuc taught me to use his machine. I've been lonely for too long and I simply can't wait any longer. In fact, I must leave immediately because at six o'clock this evening, three hours before now, I'm going to meet my wife here in this balcony.

We'll sit at this same table where you and I are sitting now, and my wife and I will have a glass of wine or two and listen to the string quartet for a while. Then we'll go for dinner and talk and talk and then we'll live happily ever after.

Don't lose the disk. Once you learn how to use it, you can have anything you want. If you're like most people, what you really want was best described by Keats, who wrote to a friend, "I am certain of nothing but of the holiness of the Heart's affection and the truth of the Imagination." O

**READERS:** If you are having problems finding Asimov's Science Fiction at your favorite retailer, we want to help. First let the store manager know that you want the store to carry Asimov's. Then send us a letter or postcard telling us the full name and address of the store (with street name and number, if possible). Write to us at: Asimov's Science Fiction, Dept. NS, 6 Prowitt St., Norwalk, CT 06855-1220. Thank you!

## How to make your car invisible to radar and laser

Rocky Mountain Radar introduces a device guaranteed to make your car electronically "invisible" to speed traps—if you get a ticket while using the product, the manufacturer will pay your fine!

It seems that as speed-detection technology has gotten more and more advanced, speeding tickets have become virtually unavoidable. And although devices exist that enable motorists to detect these speed traps, they are outlawed in many states...including mine.

### The solution.

Today, Rocky Mountain Radar offers drivers like me a perfect solution—the Phazer. The Phazer makes your automobile electronically "invisible" to police speed-detecting equipment. The radar component works by mixing an X, K or Ka radar signal with an FM "chirp" and bouncing it back at the squad car by way of a waveguide antenna, effectively confusing the computer inside the radar gun. The laser component transmits an infrared beam that has the same effect on laser Lidar units.

**Perfectly legal.** Some radar devices have been outlawed because they *transmit* scrambling radar beams back to the waiting law enforcement vehicle. The Phazer, however, *reflects* a portion of the signal plus an added FM signal back to the police car. Unless you are a resident of California, Minnesota, Oklahoma, Virginia or Washington, D.C., using the Phazer is completely within your legal rights.

**Encourage responsible driving.** While the Phazer is designed to help you (and me)

■ **The Phazer makes your car invisible to police radar and lasers or the manufacturer will pay your speeding ticket!**



**The Phazer is only  
3"W x 4"L x 1.5"H!**

avoid speed traps, it is *not* intended to condone excessive speeding. For

**The Phantom is only  
4"W x 4"L x 1.5"H**

that reason, within the first year, the manufacturer will pay tickets where the speed limit was not exceeded by more than 30%, or 15 miles per hour, whichever is less.

**Double protection.** If you prefer to be notified when you are in range of a police radar, the Phantom is for you. The Phantom combines the Phazer with a radar detector. It's legal in every state except California, Minnesota, Oklahoma, Virginia and Washington, D.C. Ask your representative for more details!

**Risk-free.** The Phazer and Phantom are both backed by our risk-free trial and three-year manufacturer's warranty. Try them, and if you're not satisfied, return your purchase within 90 days for a "No Questions Asked" refund.

### The Phazer:

Three credit-card payments of \$66.50 \$14 S&H

### The Phantom:

Three credit-card payments of \$116.50 \$18 S&H

Please mention promotional code 4242-16813.

For fastest service, call toll-free 24 hours a day

**800-399-7863**

To order by mail, send check or money order for the total amount including S&H. To charge it to your credit card, enclose your account number and expiration date.

Virginia residents only—please add 4.5% sales tax.

**comtradindustries**

2820 Waterford Lake Drive, Suite 102 Midlothian, VA 23113



Therese Pieczynski

# EDEN

Therese Pieczynski has a degree in scientific and technical writing from the University of Washington, Seattle. In 1997, she attended Clarion West, and since then, she has become the poetry editor for *Terra Incognita*. Ms. Pieczynski is at work on a degree in biotechnology in Rochester, New York. "Eden" is her first story for *Asimov's*.

It's a hot day, a Sunday in late July. They are all at Clausen's Tavern on Fox Lake: Tap, her brothers Bruce and Brian, her mother and daddy. Her daddy is standing at the bar with the men, talking about the aliens. He's smoking, dragging in and blowing out until the air looks like a bunch of HD static. It settles into the tavern's curtains that are thick and gold-colored. It leaves a scum on the window that looks over the lake. It's illegal to smoke, but her daddy doesn't care. Some of the other men are smoking, too, saying who is it going to tell them what to do?

She and her mom are sitting at a table with Mr. and Mrs. Chiles. "Where've those boys got to?" her mother asks. She squints out the back door, looking for Bruce and Brian. Ice clinks in her glass. The rim is stained bright red like her lips. Tap watches her daddy. His gaze slips off her mother and looks at nothing.

Tap tries to hide her head in the crook of her arm. It's noisy and the tavern smells like beer. She doesn't want the ice cream her mom has bought for her.

"Would you stop with that face, Tap. And sit up for Pete's sake." Her mother reaches over and straightens her like a doll. Tap's eyes sting.

"Can't I go out by the lake?"

Her mother frowns. "They don't filter good enough around here, Tap. It stinks. And don't whine. It makes you look plain." If she's good, her mother will tell her she's a pretty girl. But if she's bad, she is always plain.

Mr. Chiles shuffles cards. His fingers are fat. There is a big ring with a black stone on one. "Jack, get over here!" he shouts at her daddy. "We're waiting on you to start this game."

They sell real beer at this tavern. Her daddy carries one to the table. His face is flushed, and he sits down unevenly in his chair. Mr. Chiles slides cards across the table. Her daddy slaps his hand down to keep the cards from flying onto his lap. "I'm sick of those aliens," he says, opening his beer before he picks up the cards. "You can't go anywhere without someone

Illustration by Shirley Chan

wanting to talk about 'em. What difference does it make? So they make babies like plants, who cares?"

"That's the thing with you, Jack, you're not a curious man," Mr. Chiles says.

"I am," Tap says, but nobody hears her. She stands up and puts her hand on her daddy's shoulder. She wishes her parents would go someplace besides this stupid tavern. She'd like to go to the zoo sometime on a Sunday. Maybe see herself a parrot. She's never seen a parrot.

"I feel sorry for them, that's all. Stranded here. Can't be easy," Mrs. Chiles says.

Mr. Chiles looks mad. "An alien you can feel sorry for, your own kids, you could care less."

"You should talk. When was the last time you lifted a finger to help me raise em?"

Her daddy rises. "Who wants another?" He shows his bottle. It's empty.

"You just got that beer," her mom says.

"I could use one." Mr. Chiles says and lays down his cards. "You sit. If you go, we'll never play cards." His chair squeaks as he pushes it back.

"That boy of yours in jail again?" Tap's daddy asks. Mrs. Chiles doesn't say anything. He shrugs and resettles. Tap pats his whiskered cheek. She don't like whisker rubs because they hurt, but sometimes he likes to rub her cheek pink as a slapped bottom.

"Daddy, couldn't we go to the zoo sometime?" she asks, scratching his cheek. "That'd be a nice change, all of us going to the zoo."

He looks up. For a moment she thinks he will see her, but then his gaze slides past her and settles on nothing. What is wrong with him that he never looks at anything?

She begins to hop on one leg beside his chair. "I'd like to see me a parrot, Daddy. I hear they can sing. You want me to sing? I been practicing with the radio, and I know a bunch of songs."

"Stop bothering your daddy, sweetie. Go play with your brothers," her mom says. She says this nicely but there is a warning in her voice.

Tap waves her hand in front of her daddy's face. "Daddy? Don't you want me to sing?"

He twists in his chair, and she hops backward because she can see that he is going to be loud. "Tap!"

At the next table, the grown-ups stop what they are doing to look at her. She bites her lower lip. As she turns to cross the crowded room, she tips her head forward so that her hair hides her face.

It's better outside. Not so noisy. The grass brushes her ankles. She walks toward Clausen's pier where the rowboats are tied. There is scum on the water near the shore. Flies crawl and buzz across it. Beneath the pier the water is dark. She pushes at the bow of a rowboat with her toe.

Bruce and Brian run up. "Mr. Clausen said we could take out a boat!"

"Let's row to the other side of Fox Lake and see what's there," she says, clapping her hands.

The boys jostle into the boat. As each grabs an oar, Brian winces. Two days ago he fell from the neighbor's boathouse roof and caught his hand behind a board, breaking his wrist and wrenching his elbow. He had to have a stem cell shot right in his wrist. Tap nearly loses her balance stepping down and bumps Brian above his splint. She lands heavily on the seat.

They row a few feet out, but then the boat turns in circles just beyond the pier. She feels sick. Her mother was right. It stinks.

"Give me that oar," she tells Brian, certain that it's his hurt arm that's causing the trouble.

"Would you quit. Mr. Clausen didn't say you could go out in the boat. He said me and Bruce. That means we get the oars." He flips back his dun-colored hair.

Fish move in the shallows. The sun sparkles on their scales. They dart one way, then the other, as if they were a single life. After awhile, a big fish swims toward the boat from beneath the pier. It's alone. It swims on its side, fins fluttering. Its eyes look strange as they gaze at the sky, as if it's seeing for the first time. Bruce slaps at it with his oar. "Look at its eyes. It looks like one of them aliens," he says.

"Why hurt it?" Tap demands.

Its mouth gapes. It straightens, then lays on its side and swims toward Brian. He wrinkles his nose.

"You sissy! It's almost dead anyway," Bruce tells her. "Hey look, it's swimming right for you, Brian." He reaches across Brian and slaps and slaps. "I'm killing me one of those aliens," he says. Blood seeps from the fish's gills.

Tap turns her head.

It's night, now, and they are still at Clausen's. Humid air presses against Tap's face and her dress sticks to her legs. Her brothers dart around the neighbor's boathouse toward the tavern. She is fast at their heels. Fox Lake looks like a black space surrounded by lit piers. As the water pushes at the shore line, the rowboats tethered to the pier knock against the wood. Light leaks from the tavern's windows. People are streaming into Clausen's. Her brothers squeeze into the crowd at its open back door.

"What is it?" Tap asks, craning her neck to see between the grown-ups. She presses so close to her brother Brian that she can smell his peppermint gum.

"Shhh," he says.

Joshua Henderson, who her dad says is an old coot, hitches across the floor with his gimpy leg. Chinese lanterns strung on a sloping wire above the tables wash his face in pink and yellow light. The grown-ups murmur. Joshua's eyes bulge and spittle flies from his mouth.

"—to God. And that ain't all of it either. It touched me here," he says and points to his temple. "Got right inside my head."

"What?" Tap asks. "What is it?" She tugs on Brian.

"Would you quit," he says, shrugging off her hand. "He's seen them aliens back in the woods." His eyes are round as baseballs.

Pigeons flutter in the coop above the tavern. "Well, what're they doing here? They don't let them off that government complex, do they?"

"It ain't no government complex," Brian says. "It's a maximum security reservation."

Tap squeezes between the grown-ups. The Chiles have left, and at the tavern's far end, her parents sit at the bar drinking beer. She inches toward them.

"How do you think those aliens got off that reservation?" she asks. She hopes it will impress them that she knows it's not a government complex. But they are watching Joshua and don't say anything. The boys dart over.

"We going to go home soon?" they ask, though Tap knows well enough that they won't be leaving for a long time. The grass will be wet and the air cold before they go. Her daddy tilts his head upward and cigarette smoke drifts from his nostrils. "In a few minutes," he says. The bar is cluttered with empty beer bottles.

"They done strung lanterns in the trees back of my property," Joshua says. "Bunch of 'em." He looks like he might cry, isolated by the crowd in the center of the room. It frightens Tap to see an adult act this way. She moves closer to her parents, hopping on one foot between their bar stools.

"Daddy, can we go out in a boat tomorrow?" Bruce asks. "Mr. Clausen said I could use his pole, and I want to catch me a bullhead."

"What for?" Tap asks. "You can't eat nothing comes from the lake."

He tugs on his daddy's shirt. Brian has stepped back to watch Joshua.

"—touched me here," Joshua says. "I saw things." His voice takes on an hysterical quality. "They made me see things no one should see."

Nat Taylor pipes up, "Somebody's got to call the authorities. They got to come get those things before they do us harm." He wipes his broad hand across the back of his neck.

"I know things," Joshua says, his eyes glassy. "I know things about you, Nat Taylor."

"I say some of us men go back there and run 'em off," someone shouts.

Glances dart from face to face. A musk of fear rises. Tap watches her daddy. His gaze slides over the worried crowd like oil sliding over water. He turns back to the bar and orders another beer.

"I want to go," Bruce says.

Her daddy peels the label from an empty bottle.

"Daddy?" Tap whines. Her father's face pales and red splotches appear on his neck and forehead.

"Goddamn it—"

The boys run.

"You stay on out of those woods," Tap's mom yells as Tap shoots out the tavern's back door behind her brothers. Around the side of the building, she runs smack into Brian. He grabs Tap with his good hand and pushes her up against the siding. Beneath his tank top, dirt and sweat streak his shoulders. "Me and Bruce are going to go into those woods and find those aliens and you are not going to tell, or I'll wallop you."

"I want to see them, too," she whispers. She squints at Brian's splint. He is always trying to climb up on things, but he falls so often that she wonders if he hurts himself on purpose. Bruce has a backpack slung over his arm. Where'd he get that?

"You won't either like to see them," Brian says, flipping back his hair. "You'll be scared." He reaches in his pocket and pulls out a crumpled bill. "Here's five dollars. You go on and get some ice cream."

He and Bruce start toward the front of Clausen's, Bruce digging in the backpack as he walks. They cross the street and enter the woods.

Tap stomps her foot. "Wait!"

When she reaches the spot where they entered the woods, she hesitates. The woods are dark, and she hasn't got a flashlight. The leaves have rotted in slick layers beneath the trees. She wrinkles her nose. It smells like an outhouse. She sets her jaw and plunges into the underbrush.

A light flashes into her eyes, and she screams. The boys laugh. They hold flashlights under their chins. "Whooooo."

"Creeps!" Her voice sounds shrill. She chases them through the ferns. But soon they stop running because they are uneasy in the dark.

"I want to see them aliens," Tap insists. "Nat Taylor said they move like amoebas."

"Oh, they don't either. They're like stretched out people with big bellies and you can kind of see through their skin. I saw a picture at my school," Brian says. "If you touch one of 'em something happens to you, just like Joshua said. That's why they keep them on that reservation."

She sidles between her brothers. "How far you think it is?" she asks, trying to slip her hand into Brian's.

"If you're going to be a baby, you can't come," he says, shaking her off. "It's near two miles from here."

"We going to walk all that way in the dark?"

"No, you dummy, we're going to grow wings and fly like pigs!" The moon slips from behind a cloud and shines momentarily through the canopy. "This path goes right to Gibson's Road, then we can hie across the field to Henderson's," Brian says.

Deep in the woods, the eyes of a small animal momentarily glow red, then fade.

"Ohhh, I hope Daddy takes us out in that boat tomorrow," Tap says, nervously.

Brian snorts, then mimics her voice. "*What for? You can't eat nothing comes from the lake.* Besides, he won't anyway."

"Said he *would*," Bruce says. He casts forward with his flashlight as if it were a fishing pole. Its light arcs like nylon line, and ferns swell from the darkness. Brian is forever throwing out the minnows Bruce brings home from the lake and cutting up pieces of ham in the shape of fish for him to eat for his supper. You'd think Bruce'd notice a thing like that, but the truth is he doesn't pay attention.

"All Dad ever does is drink and watch HD. I hate him. He ain't never getting up from whatever chair he's sitting in. You're just stupid if you think he is," Brian says, quickening his pace.

"Why don't he ever?" Tap asks. She rubs the side of her face. Her daddy is always saying how he'll fix her Barbie doll's head, take her out fishing, teach her to play Rummy. Things he never does and that she can't bring up again for fear he'll yell.

Brian stops. "Did he knock you upside the head for walking in front the HD, again?"

"No."

A tic starts at the corner of his mouth. He presses the flashlight against his hip and the light illuminates their feet. It scares her. He looks so serious and quiet. "We're invisible, squirt. You know that? All three of us."

"Well, shoot, what's that suppose to mean?"

He tilts his head. "You think anything's going to change for us, squirt? I look at daddy and see myself sitting in that bar stool in fifteen years. How much chance you think the three of us have of escaping Fox Lake?"

Brian strides ahead. She has to jog to keep up. "Brian, slow-up."

"Those aliens are our chance. If we could just find em, maybe they could—"

"Shoot. More likely we'll get whopped for going into these woods when mom said not to."

"Ah, what do you know," he says, disgustedly. He sprints forward, and

now she has to run to keep up. His flashlight beam bounces as he runs, and, behind him in the dark, she stumbles along as best she can, scratched and slapped by passing branches.

After a half mile, he stops running and pants with his hands on his knees. It is about time, she says, as she is near dead and all scraped and bleeding. He looks at her as she comes up beside him, then pulls up short. "Hey, where'd Bruce get to?"

"Bruce?" he shouts.

Silence. Brian wipes his nose with the back of his hand. "Bruce," he hollers. "It ain't funny. You come on and answer me." His voice cracks. "Didn't you see where he went?"

She looks at him wide-eyed. "He's lost in these woods," she says, inching closer and winding her hand in his shirt.

"No, he ain't," Brian says, fiercely. "We are right near Gibson's Road! We just stay together, and we're fine. I'll tar him alive."

They hear snuffling and crunching somewhere off in the woods. Fear quickens Tap's breath. The eerie music of night woods rises into an insect's scream. Brian jabs his flashlight beam here and there. The ferns sway and gooseflesh spreads down Tap's legs. She shivers.

"I bet those aliens got him," she whispers.

"Would you quit!" Brian shakes her. "You stay here. I'm going to go find him."

"Oh, no. I ain't staying here myself, not with no aliens wandering around these woods," she says, clinging to him.

"This here is the trail. If you stay here, then you can yell, and I'll find you again."

"I ain't got no flashlight, Brian. Don't you leave me in the dark."

"You baby, I told you not to come." He shoves her. "I ain't got no choice now, do I?"

He moves toward the sound, the beam from his flashlight spreading before him. But, a few yards into the woods there must be a dip, because the light disappears.

As darkness envelops Tap, the air grows sweeter. After awhile the wind kicks up, fluttering around her, lifting her dress. It tingles down the length of her spine.

"Brian?"

Her eyes sting and she rubs them with balled fists. When she blinks, lights flicker deep in the woods, as if the trees have filled up with stars. Again, her breathing quickens. She drifts toward the light, her feet crunching needles and twigs.

At first, it looks as if lanterns have been strung from the tree boughs. But, as she creeps closer, she sees that they are globes of pulsing light. They hang from the branches like bright apples. The aliens are beneath them. She watches them leap and weave between the trees. Their creamy bellies swell like balloons as they rise into the air. Their skin ripples, and their mouths open so wide, she can see their tongues quiver. Stringy hair billows like lake grass from behind their heads. Soon they are flying, their faces all see-through and pretty. She is not afraid, though her hands feel sweaty. She rushes toward them, but they rise and hover out of reach.

She tilts her head and stares at them for awhile. "How come you did that to Mr. Henderson?" she asks.

An alien drifts closer. Tap *feels* a humming. It's not something she hears.

—*The man's change was not our intent. We are not like you. You are born once and are yourself. We must be born twice, once as you see us now, and again in new form. The man's touch was necessary for our brother Plath's gametes to mingle . . . for Plath to be born again.*

She wrinkles her nose, and the alien hesitates.

"What'd you guys do before you found Earth?"

Another floats forward.—*There was a symbiont. It did not survive our crash.*

With sudden insight, Tap says, "Something different happens to you when you touch us, doesn't it?"

The aliens glance at each other.—*Yes. We anchor and are diminished. But we have no choice. We must transform or die.*

Again, clarity fills her. She has been chosen. They've chosen her . . . not Brian, as he would have so wanted. It is she who will be changed. She who will see. Her heart pounds.

"If you touch me, will it hurt?"

—*No, but we will not be able to protect you from seeing certain things. We don't know why this occurs with your species.*

"It's okay. I don't want to be like my daddy. I don't want my eyes to slide like oil over people. I want to see every last thing there is." She reaches toward them.

They hesitate.—*She's very young, one whispers.*

Another alien drifts closer.—*Be certain. Those we have touched did not see things just about themselves, but about those whom they loved. We fear this is a burden. We could leave and choose another.*

"No! No, it's okay. I've decided." She jumps up, determined to grab hold. A single alien reaches for her. It smells like mown grass. She latches onto its papery arms. Its skin molts as she touches it, falls away like rice paper. It pulls her to its chest as it rises high above the trees. She gasps, for she sees that time is a string of jewels, a clear line running from the rhinestone-past, through the opal-present and into an emerald future.

"It's like having a hole in your heart and the blood mixing," she says. "Cept, it's not blood." Her arms spread wide. A glowing taper touches her temple . . . a vine of pure light tendriling and unfurling in her mind.

"Hey, look, there's Brian! What's he doing on the lake? Man-o-man, is he going to catch it taking out a rowboat alone. . . ! Wait. What's he looking at?" She peers closer.

Held below the water by strands of weed are the bodies of two boys. Their limbs have bloated and twined together. As water slaps the boat, the bodies bob. Startled, she looks again at Brian. He knows these boys. He's found them by accident. His heart pounds in her chest as he leans toward them. His arm plunges into the water. Its cold shock throbs in her temples as he reaches toward death. . . .

. . . Brian is older, now. He and his friend Jeff have ridden into the mountains on his scooter. It's so loud. She feels the uneven road vibrating up through the tires. They stop beside a cliff. Brian dismounts. But as Jeff swings his leg over the seat, his pant catches on the scooter's kick stand. He bumps the accelerator as he bends to detach it. She screams through Brian's mouth as both Jeff and cycle arc over the abyss. . . .

. . . Two more summers and there will be a woman. Brian's hands stray quick and hard over her body, his wet lips whispering close to her ear. This woman, too, will die through no fault of his. Already, Tap can smell the

woman's hair burning, and as the woman's house collapses in flame, she knows with certainty that Brian's charisma is to attract those who are about to die.

"It's already started . . . the fish." She begins to hyper-ventilate.

Her skin prickles, her eyes fizz, and the vine burrows deeper. . . .

Brian shakes her. "Wake up, Tap," he says. The first thing she smells is his peppermint gum, his breath hot on her face. She opens her eyes. She is curled in a pile of leaves at the base of a tree. The lights are gone.

"I spent all my time looking for Bruce and then you and now it's time to go home," he says with irritation. Bruce stands thoughtlessly beside him playing with his flashlight. "Hey, what kind of tree is that?" he asks, swinging the beam above Tap.

"I saw them," she whispers.

"Would you quit. You didn't see anything. You fell asleep," Brian says.

"No, I didn't. I saw the aliens and I saw you. . . ." She touches his splint. ". . . and I saw Bruce."

How much Bruce already looks like her daddy.

Like him, he will allow the ordinary things in his life to shape him. The extraordinary events, the sweet and bitter taste of other lives intersecting his will not touch him. He will walk into adulthood staring at his feet, live his life as if it were a fermented darkness, raising glasses in taverns, surrounded by people who have gathered to look away.

She stands. A terrible pain convulses through her. She sways.

"Brian, what kind of tree is this? It's weird," Bruce says again, flashing his light into the branches above Tap.

"Are you okay?" Brian asks her.

She touches his cheek. For a moment, his face flares, bird-like and pale, before receding again. Her third-eye has opened, and with it a door shut. In the end, how little of our lives we choose for ourselves. Already Tap can feel herself growing apart from her brothers . . . and the gap will widen. Inside, she feels the vine tendril, its light shaping, illuminating.

They are quiet walking back to the tavern. She twines her fingers through Brian's hand, and he does not shag her off.

Things have settled at Clausen's. The adults have moved the colored lanterns into the trees outside the tavern. Music drifts among the leaves, and a few couples are dancing. A car starts. Someone laughs. Tap watches mothers corral their children for the late trip home. They are simple women in faded dresses, their souls as soft as the curve of their stomachs. Already their children grow transparent, sheltered within their arms.

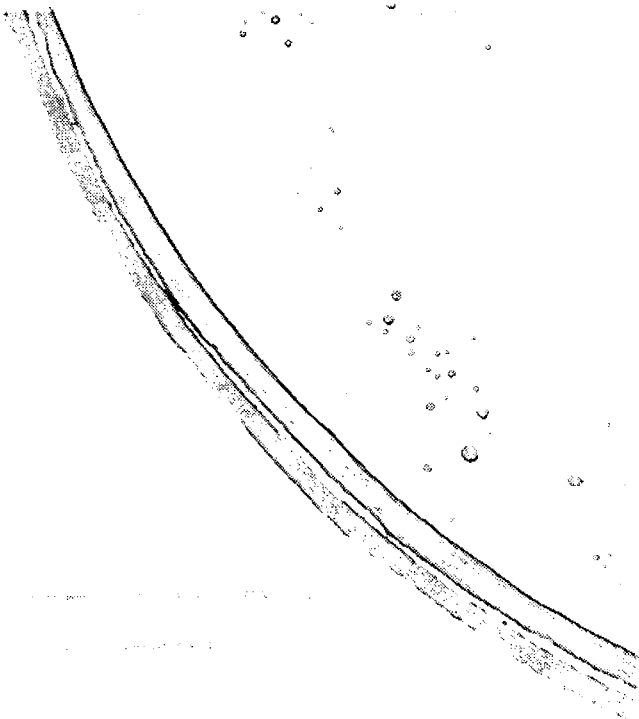
Tap's mother is searching for her children, one hand cupped above the eye. Her face shines in the lantern light with an affectionate cruelty. She appears to Tap as innocent and malignant as a hook.

Her father has begun the ritual of leaving: the back slapping, the posturing, the promises. Even here, his gaze touches no one. What is not seen need not be let in, nor loved too much, nor missed irretrievably if lost. What simple woman carved his fear so deeply?

Joshua Henderson stands apart from the others. As he glances at her, he startles. Ah. Already her face holds the shape of what she is become. Slowly, he brushes his hand across his face. *Eden is closed.*

Yes, Eden is closed. Tap sighs.

There are some things no one should see. ○



William Barton

# HEART OF GLASS

A word of warning: this story contains scenes that  
may be disturbing to some readers.

For most of his career, William Barton has been an engineering technician specializing in military and industrial technology. At one time, he was employed by the Department of Defense and worked on the nation's nuclear submarine fleet. He is currently a freelance writer, systems consultant, and web developer, and has, for the last several years, been involved with the electronic publishing industry. His most recent novel, *When We Were Real*, was released by Warner Aspect last summer.

---

Illustration by Mark Evans

LICENSED TO UNZ.ORG  
ELECTRONIC REPRODUCTION PROHIBITED



ook.

From Hoherdbahn Industriebezirk Laboratorium-Forschungswohnrad Sieben, called HILF-7 by the men who count, among the newer high-earth orbit entrepot stations, you can cover that little blue blob with the tip of your pinky held at arm's length, even a long arm's length like mine.

Earth, not quite full, floating against the black beyond, Moon a smaller red-gray blotch halfway across the sky, a few hard, bright stars in between. Sun was behind us, of course, on the other side of the station, foreground filled with glittering lights, floating ships, winking blue thrusters. . . .

"Shoot, Eltanin. Don't look like nothin' special to me."

I started picking through the ships, watching for welder flare, looking for my own, *DataRam 20*, my ship. Almost ready, ready for me to go, then I can get out of this damned place, get on *out* into the anonymous dark where I belong.

Get away from this old demon-haunted, human-soiled world.

Holding onto a rail with one foot, one hand pressed to the obdeck's blisterglass, I shrugged, glancing at Sorrow, whose affected accent came from old, old cowboy dramas. Foxface, red fur, blue eyes, black claws on his fingertips . . . stupid design, hardly an optimum optimod. "Nobody said it would be."

"What about all them old books, Eltanin? Big blue marble, they said. Fragile blue sphere lost in the void of space. All that shit."

"Poetry."

Yeah. Poetry. Not for the likes of us.

"Shoot." He looked away, back out at the Earth.

Neither one of us had ever seen it like this before, likely would never see it again. We'd be on our way soon, heading back out in our magic space-ships, going back out where we came from, back out where we belonged. "Shoot, Eltanin," he said, "I felt for sure *you'd* feel that way, at least."

"Sorry."

"Yeah, right."

Expected it from me because my genome is 87 percent human? Like there was some collective unconscious making me yearn for a Manhome I'd never known? Bullshit. Someone once told me I looked like a cross between a spider monkey and a gray wolf, jammed into the shape of a man.

I did a database lookup on both animals. Couldn't see any family resemblance. Just the shape of a man. Eltanin. Optimod. Captain, *DataRam 20*, A-4 Class Prime Mover, Standard Asteroid Resources Mining Corporation. Born in the Oort, I forget how many years ago and . . . born. Shit. Stop lying to yourself, Captain Eltanin. Use the right word: *Decanted*.

Shape of a man?

Hell. Say it right.

Eltanin, optimod, manufactured service module of Standard ARM.

Beside me, I could hear stupid Sorrow sigh. "Shoot. Don't look all that different from Telemachus Major, if you ask *me*."

I remembered. Sorrow and I'd met once before, years and years ago. I remembered us floating, holding hands, forcefields glimmering where they meshed, floating in dark space beside a dark ship, hanging above a remote lost world.

Out on the edge of everything, far, far away, as far as I'd ever been from the light of Manhome's sun, it was a lost, frozen, blue-white world. No light, no clouds, nothing like an ocean sea, but . . . ice crackling between frozen

continents. Mountains towering desolate in the middle of gray-black nothing.

I whispered, "Not so different . . ."

Nobody knows how Telemachus got where it is, out on the edge of the Oort. No sign it ever had life. No telling how old it might be, as no scientists have made it out there yet.

Old, maybe. Lost world ejected by its exploding sun, caught up in our new sun's coalescing cloud.

Outside, I finally spotted my ship. Blue flare of robot welders working on her hull, flicker-flash, flicker-flash. My friend Max is out there somewhere too, crawling on her hull, waiting for me to come back, waiting for us to be on our way. Too bad they wouldn't let Max come inside too. We might've had fun here together.

"Y'all boys need to get out of here now."

"Shoot." Another sigh from Sorrow.

The cop in the doorway, dressed all in blue, badges gleaming here and there, gold, silver, cheap-looking pewter gray, seemed human enough, but you never can tell. Some of the early-model optimods, first and second generation, looked that way. Was only later they started giving us fur. Fur and pointy ears, claws on their fingers and fingers for toes.

More useful, they said.

Yeah. Right. And more *different*. More obvious.

The cop, voice a shade gentler, said, "Let's go, boys. Y'all don't need to be here at all. You seen empty space before."

I looked at Sorrow, back out at Earth and Moon, stars, starships, and blue technofire. "Sure. Let's go."

The cop looked relieved.

Took us the better part of two hours to get back to Optimod Transit Barracks 51a, the one over by dockside-alpha, where the shipyard hardware platforms are stowed. Not all that far, but we had to stick close by the hull all the way down to the station keel, minimize our shortcut through humans-only space.

Of course, some damn cop had to catch us anyway, this one definitely all human, all bluster and bullshit, taking our numbers so he could log our fines to the company, making us hang around and wait when he could've let us go.

Bad, bad optimods.

Ought to make you boys stay outside with the robots and shit.

Sorrow said something about them not making the shit stay outside, only the robots, and the cop lifted his hardwand, sparks glimmering blue-white-green around its tip. Didn't hit him though. Even a human cop has a paycheck that can be docked for property damage.

And if he was any kind of a *real* human . . . hell, only the scum have jobs these days.

That's what I hear, anyway.

So we got home late for dinner and had to make do with midnight snacks.

Midnight snacks and one of the junked allomorph machines that'd somehow wound up living in our barracks instead of going to the recycler. Nobody knows how we got them; probably some techie doing a good deed. Thinking it was a good deed, anyway.

These allomorphs were fucked up, as if they'd been mangled in a wreck.

Too busted up at any rate to be worth a trip to the repair shop. Easy to make more, I guess, in a rich human world.

I got my turn third- or fourth-hand that night. The allomorph that knocked ever so timidly at my door had only one arm, the left; the right arm was pinched neatly away at the shoulder, right eye missing, the other one starred with such a crazyquilt of cracks I wondered if it could still see.

Allomorph so ruined it was stuck in base state.

Allomorph like a skinny girl-thing, girl-thing from some half-forgotten drama, staring at me, almost eyeless, waiting for me to decide what I wanted to do.

Not much of a decision, hm? You know how that story goes.

After I was done, I found out I'd been last in line, just my luck, and got to keep it for the night.

Snuggled myself in the blankets, in the darkness, curled around that faux female shape, trying not to pretend.

You know that part of the story, too. How they made all the optimods male. Male rather than neuter, because they needed us to have hormonal drives or we wouldn't do their work. *All* male just to be safe. All male lest an industrial accident should occur.

When I didn't fall asleep right away, the allomorph cradled my head, stroking my hair gently, softly crooning a song I didn't know, rocking me like a mother with a child.

The allomorph said, "Are you sad, Mr. Eltanin?"

Sad. Mad. Glad. I don't know.

It didn't seem to expect any answer.

Just had a need to ask, a machine's rule-sieve-driven need to help. Help out any way it could, with a thing that was vaguely like a man.

Departure day.

Kissed my little allomorph machine for no reason I could think of.

Held still while it took my chin in its one little hand, looking at me through a shattered glass eye.

"Take care of yourself, Mr. Eltanin." Hardly more than a whisper, whisper freighted with . . . I don't know. Some emotion a human woman would feel?

How would any of *us* know? Just some sullen programmer's secret wet dream, back at the dream factory we all come from. I shook hands with Sor-row and all my newfound optimod friends, brothers under our ersatz fur and flesh.

"Maybe we'll meet again."

"Maybe so."

Fat chance, out in the extended Kuiper, out in the vastness of the Oort. Not many chances to visit the vicinity of Earth in an optimod's lifetime, however long it turned out to be.

Out in the dockyard, I threaded among the moving machines, moving toward my ship, landing on its gently curving, fitting-studded hull. Smooth places here and there. Rails to grip, suited for human hands, better for four-handed beings like myself, still better for machines who could have as many hands as they needed.

Machines who'd do all our jobs if they didn't cost so damned much.

I landed, feeling my gossamer wings fold away, clingfield sparkling where it touched the ship, making little glitterfairies all over my suddenly sealpoint fur. Overhead, Earth and Moon and Sun and station were smears

of featureless gray, dimmed by filters that knew me well, black space welling up beyond, riven by the silver-gold light of a trillion empty suns.

*DataRam 20* could get me to the nearest of those in fifty, maybe sixty years, if I let her try. Well. We'll be back in the Outer Oort in under a year. That'll have to do.

"Captain."

Max, my only crew.

Featureless cylinder of shiny bright pseudochrome, eight jointed black buglegs with vise-grip feet, six long arms with complex, articulated, inhuman hands. Mitsubishi Autonomic Xenophore, autologous machine identification number EMH9-2157 . . . hell, I still forget.

Max, my only friend.

Who whispered through the luminiferous ether to a receptor in my head, "How was it, Captain? Was it as wonderful as they say?"

I nodded, knowing there were rule-sieves that understood about lies.

A sigh blew through my head like some faraway wind. "I'm glad for you, Captain."

"Sure. Let's check things out, huh? Get going on home."

"Home. As you say."

There's a moment at the start of every voyage when you sit in your command module, when you light the field modulus device and feel the controls come alive under your hands, in your mind, at the bellypit of your soul, when you move the ship out of its cradle. . . .

A moment when you forget to ask why you're alive, when you forget to wonder why you were ever born, forget to rue that day, a moment when you suddenly, once again, know the answer to all those questions.

Like taking a deep breath, oxygen in your lungs going straight to your brain.

I'm alive again.

Sad. Mad. Glad.

None of those.

Or all of them together.

*DataRam* whispered, "All systems nominal."

From its station on the hull, Max whispered, "Decouple complete."

A voice from HILF-7 control said, "Shipping and Receiving. Clear transit. Stat."

I made the universe shift around us, Earth and Moon, Sun, station and stars rolling this way and that, shifting forward and back 'til we got where we were going.

"Cargopod 661. Standard ARM," said the voice of S&R.

"Roger. 661 clear for docking." That would be me, talking into a throat mike because I'm not quite a magic machine.

Its plastic hull was colored like gold, bright yellow metal in the light of the sun, a nearly featureless can glinting here and there, rolling and twisting, bloating quickly as I lined up on its forward docking port and ran on in.

The ship shuddered when we struck and stuck. A very faint vibration, one we shouldn't have felt at all. Just a little detune on the thrusters? HILF-7 techies getting a little careless, maybe?

"Couple complete."

"Okay, Maxie. Let's see what we got."

\* \* \*

Inside, the pod was a dim, red-lit cavern stuffed with stuff, crates and canisters and boxes threaded through with temporary tunnels into which we could snake our cargo handling gear at need. Most of the crates were identical little black plastic lozenges.

Manifest.

"Industrial mining machinery, packed in dry nitrogen, bound for . . . well. OC-43°4048'/r7221." That would be Standard ARM Decantorium number Three. Good old SAD-3, another place I'd been before, would never see again, like as not.

Max's voice whispered, "501.5 days."

Seventy-one weeks and a little bit more.

DataRam whispered, "Customs inspectors alongside."

In all the old dramas it would be, "Permission to come aboard, Captain?"

But not here. Not now. Not with *us* as master and crew.

I said, "Better break out the small grapple, Max. They'll want to dig in a bit." They always do. One from the front layer, two or three from deep inside. Sometimes you'll get an asshole who wants to dig all the way back, making you late for the departure queue.

This pair was a man and a woman, both human, one each from OPEL and HILF, partners in the Solar Alliance, pretense of governance. They'll get over it someday, shrunk to insignificance by the likes of Standard ARM and its brethren.

Business.

The business of business is business.

That government governs best that governs least.

And so on.

*Ad bullshit infinitum.*

But OPEL, the NASA Outer Planets Exploration Laboratory research organization, had survived the coming of UNIS, the United Nations Intereconomic System, and the dismemberment of the United States, by refusing to bring its few thousand astronauts home from the asteroids, from the tiny fuel plant colony on Jupiter's Callistan moon.

Government agency defying the government to come.

I gestured to Max and the handler, getting them ready to . . .

The HILF woman said, "You just stand over there, boy. Stand quiet now." Ah, HILF A.G., in the finest tradition of dying capitalism, German industrialists keeping their valuable research facilities aloft, paying tax after tax after tax, meeting in secret with OPEL escapees, biding their capitalist time . . . waiting for time to come, just like us, in the here, and the now.

I stepped back, looking at Max, who had no way to look back.

Let it go.

Let it go, boy.

That's what Max's face would be saying, if it had a face that could speak.

The OPEL man, looking up at the forward face of the cargostack, said, "Well." OPEL, they say, were the first ones to meet with the clandestine subgovernment of China, Green China angered because UNIS made them pay full-rate industrial taxes rather than giving them the Third World free ride they expected.

The woman smirked, "If this is Tuesday, it must be . . ." She started counting, over six, down three, back two, down seven . . . "Eenie, meenie, minie . . ." *That one.* "Boy?"

Even now, you can hear the HILF managers whispering softly, seduc-

tively in Chinese bureaucrat ears: One of us now. Men who count, burdened by those who don't and never will.

I gestured to Max, who used the handler to pull it free and hand it down. "Manifest says it's a diamond-coated maraging-steel drillhead."

The man said, "Just open it, boy."

Right.

I hooked it up to a purge line and swapped out the dry nitrogen for cabin air, popping the hatch latches with a hiss just before depress was complete. The woman managed to get out of the way in time, giving the OPEL guy a dirty look for his snicker.

Inside was a standard-issue mining robot, folded up like a dead spider, silver and red silk shot through with threads of gold. In one of its hands was a little packet, something small wrapped up in white linen.

"Ah-ha," said the woman.

The man picked it out, and said, "Well. That's all, boy. You're clear to go." It didn't take them thirty seconds to get clear of my ship.

So.

Reverse the purge and put back the dry nitro. Put the box back in the stack and secure the cargo face. Plenty of time left to loaf around.

Max whispered, "We knew this. But . . . very bold."

I nodded, reeling the nitrogen line back into its slot while Max put away the handler. "Yeah. Maybe we'll have a looksee some time."

"Curious?"

"Maybe. Anyway, we'll have nothing better to do, by and by."

"Maybe so."

HILF-7 not quite melting in the sun, floating in front of us, bumps and bulges and spheres, turrets, antennae, slowly turning; blue Earth beyond, then gray moon, bright sun, gunmetal stars, empty black nothing going on and on.

*DataRam* said, "Prepped for acceleration."

Max from the hull: "Ready to roll, Captain."

I could see the other ships in my global display, old-fashioned IK/STO inner system ships from the InterKosmos Space Transport Organization with their silvery hybrid-plume engine exhaust shining like angels' hair. Mars and Venus. Mercury, the Piazzi Belt, Jupiter and Saturn.

Your basic planet next door.

Deep Space Control said, "Next in queue, *DataRam 20*. Ten seconds."

"Roger, Control." Said by me, just like a real, live boy.

"Five seconds."

"Ignition sequence."

I felt the field modulus device run up, waste-heat exhaust suddenly spilling hard, guttering blue ghostlight on the side of HILF-7 facing us, picking out a million meaningless technodetails.

"Go."

HILF-7 lit up brilliant blue-white in our radiance, lit up like she was on fire, lit up and fell away, Earth and Moon pulling together quickly, shrinking, merging with the Sun more slowly, while the stars turned round us, ever so slowly, taking their positions as we fell on our course.

That's it.

One minute down, sixteen months to go.

Sixteen months and, oh, call it two weeks.

I suddenly thought of the allomorph I'd left behind, with its one shattered eye, its missing arm, its not quite unformed shape. Wonder how much it'd cost a human to buy one of those new?

Well. I'm not a salaryman here, paid for what I do.

Call it all the money in the observable universe, then.

Call it anything you want.

I tried to remember the song it'd sung to me, singing me softly to sleep, but the words were gone, no more than snatches of tune left behind. Pretty soon, those would be gone as well.

*DataRam* said, "Point-oh-eight cee. Acceleration complete."

The ship went quiet.

After a while, it whispered, "Solitaire, Captain?"

Silence.

Then, "Sure. Deal me from a twenty-deck shoe."

You think, you dream, you work, eat, sleep, prowl the corridors, get out on the hull and watch the shiny bright stars do nothing at all. Maintenance takes care of itself.

What am I?

Who do I pretend to be?

Database full of knowledge. Old dramas and new. Somehow the older ones make more sense, old humans much more like slaves than the ones we have now. What did they do, before all this?

And why did they do it?

No one seems to know.

Time passes, and we are passed within it.

Standing out on the hull beside motionless Max, hanging in the center of a motionless sea of suns, I remembered where we were when the OPEL 2147 Alpha Centauri expedition went bad.

Maxie and I were out in the middle of our usual nowhere, midway between one Standard ARM depot and the next, months on our way, when there bloomed a blue-white spark in the remote nothing-at-all.

Supernova?

Ship-to-ship chatter grew over the next few days, our neighbors in transit, each separated by a solar-system's volume and more. Then the long meson-chain debris came by and we knew it was an exploding ship, the first in many long years, since the dawn of field modulus conversion.

Who?

Anyone I know? *Knew*.

It was a while before the news got around, of a ship some 0.88 light years out, ramming a bit of uncharted debris on its way to another star.

Don't know as they've sent another one yet.

Don't suppose it matters.

Someone will get there, sooner or later.

Maybe even me.

I've tried to imagine myself standing by the seashore, gentle turquoise waves hissing up the sand, curling round my bare feet, seafoam tickling my toes.

In today's dream, I had that allomorph with me, somehow magically made whole. Would an allomorph dream that dream?

An allomorph would know a human's stock of dreams, might imagine them infesting a semihuman like me.

Star light, star bright, you might say, standing in my metaphorical shoes. First star I see tonight . . . oh, hell. Enough.

One day, maybe three weeks out, Max and I went on down to the cargo-pod, stood in the red-lit almost-night. "Check things out," that's what I told *DataRam*, for the logbook. Things were pretty much as we'd left them, cargo unshifted, handlers and grapples and gaslines stowed, a place for everything and everything in its place.

Looking up at the forward cargo face, I counted, over six, down three, back two, down seven. "That one."

*DataRam* whispered, "For the logbook?"

Well . . .

Max: "Automated cargo load test. Specific gravity anomaly."

The ship said, "Technicality satisfactory. No log entry required."

Max got the handler and pulled down the lozenge the inspectors had gotten into.

"Okay. Let's see the one right behind it."

Max hesitated, motionless. "Ship?"

"Technicality continued. Proceed."

As he took it down, Max said, "You're right. They're not quite the same. There's no hardware in this." Hefted it slightly in the grapple. "Not empty though."

When it was down on the deck, I walked round and round, prolonging the moment, feeling deliciously like a dramaturge's character. "See here. Three fittings instead of just the one. Green, yes, but then blue and white."

Max was silent, dodging the logbook, but . . .

Green for nitrogen. Blue for oxygen. White for carbon dioxide, of course. "Open her up." Max turned toward the cabin air purge line, stopped when I held up a hand. "Just pop the lid."

More motionless hesitation.

*DataRam* said, "Fittings indicate the container is air pressurized already. Proceed."

Just a feeling. Just a feeling, boys . . .

When the latches went, the lid jumped up a few centimeters, pushed by a slight internal overpressure. Jumped up, and there was . . . a stench. Like failed life-support plumbing.

Well, I'd been wondering for weeks what the hell they might have been smuggling on out to make that specific gravity anomaly. Then, there was the matter of those standard-air fittings. Maybe I expected to open the lid and find some dead animals inside. Maybe even dead optimods, though the cost of that . . . cheaper to make us up *in situ*, wherever we're needed.

What the hell kind of *animals* would they smuggle, anyway?

A voice from inside, sounding utterly frightened, said, "*Hoy! Dali kayo!*"

I motioned for Max to pull back the lid.

There were . . . I guess you could call them people. Five people inside. A male. A female. Three cubs of varying sizes, all with bronzy skin and straight black hair. Maybe they would have said something else, Max being a familiar sort of machine, but . . . again, I don't know. They looked at me, falling silent, three cubs bug-eyed, female jamming a fist in her mouth, male simply gaping.

Remember, they don't allow optimods down on Earth itself.

*DataRam*: "Still operating under the technicality. Proceed."

Max said, "These people have been in here for some time, some weeks longer than the actual flight. Under less than optimum conditions."

They were dressed, all of them, in some kind of white fiber clothing and sandals. Grubby looking. Five humans crammed into a space hardly big enough for them all to fit, along with a jumble of life-support hardware and some kind of portable lavatory. Little toilet. Little sink.

The woman was looking at me with big, very dark eyes. Kept glancing away from my face, down toward the middle of my body and back.

The chance of a lifetime.

Anger. Hard anger glowing and glowing . . .

One of the cubs said something, pointing at me, in that babbletalk language of theirs.

I looked away, back up at the cargoface. "You suppose . . ."

Max was silent, not wanting to jeopardize the operational technicality.

The male babbled something, and when I looked down at them, the female took her fist from her face, opening her hand, holding it out toward me, somehow imploring. But then she glanced down at my middle again.

What the hell is she seeing?

The Wolf Man, sprung to life from his old drama?

Well, they must know drama, old and new. And, even though I've never seen an example, there must be dramas about . . . us.

Surely?

Max said, "It's illegal to transport humans off Earth without an export license, as per the HILF/OPEL treaties following the overthrow of UNIS at the turn of the century." HILF and OPEL, Green China somehow lost in the chaos, going down along with UNIS and all the old governments.

Smuggling.

Why would someone smuggle human beings out to the Oort? Why the hell? There's nothing out there for them, just work, for optimods and robots and their kin. Those like us, and a few human engineers, a few managers, to keep the show going, I suppose.

Bringing in the CHON.

Bringing in the steel.

And so on.

*Ad infinitum.*

And these are surely neither managers nor precious engineers.

I whispered, "Ours is not to reason why."

The ship said, "You are close to overriding the technicality, Captain."

The woman reached out her hand again, and said, "Pliz, kine sor . . ."

Big dark eyes.

Shiny black hair.

Smooth, soft, female face.

Those breasts, subtle shapes under white cloth.

Those hips.

I thought, Standard ARM is the law. The only law out here. Captain Eltanin. She seemed to recoil, but I reached out, arm quick as a snake, and caught her shaking hand.

Max said, "We'd better put them away now. We can . . . talk out on the hull."

Out on the hull where no one will hear, not in an official capacity so long as nothing goes wrong with the hardware, not even our sweet friend *DataRam*.

I pulled the woman out, overcoming her resistance, ignoring the male's alien protest babble, the outcry of her three cubs.

Max, expressionless, featureless: "Captain?"

I glanced at it, glanced away, looked at the woman, back at the canister, then over at Max again. "Just . . . a minute." Breathing ragged. My breathing. Ragged. Hot. Very soft.

Oh, that soft hand in mine, fingers shaking ever so slightly!

The male started to shout, tried to climb out, fell silent and motionless when I turned to look at him again.

They all stayed silent, humans, robot, starship mind, as I took her aside, down into the mouth of a dark tunnel, pulled her out of her filthy clothes, laid her down on the deck, and did what I wanted to do. Stayed silent, silent and big-eyed, those as had eyes, while I put her back in the box and had Max close the lid.

Out on the hull again, by the light of the motionless, meaningless stars, Max and I had nothing to do but talk. Lots of useless round-and-round, who what when where why, most of it coming from me, worrying at a problem without an answer, why the hell? No *reason* for it, you see.

"What the hell, Max?" I gestured up at the stars. "You think they're fucking *tourists*?" Nice little dramaword even Max would know.

Maxie was silent, not having an answer.

Not for me, anyway.

Some little while later, I told him that I thought I might want to . . . check out a few more canisters.

I think the fur on my shoulders lifted up, all by itself, when I thought that. Certainly, I saw firefairies reflected on Max's integument, knew I was growing sealpoint inside my hullside forcefield.

Yeah. Right.

Max said, "You know if you do, it'll wind up logged and noted. We can't use that technicality again without declaring a cargoload fault. Someone somewhere will want to know why."

"Will they now?" The sarcasm not at all lost on my fine Maxie.

*DataRam* said, "It may be that a log entry must be generated from this event. The nature of the cargo is immaterial, but there has been a serious manifest/weight anomaly. This has had an impact on mission parameters, and will require a major midcourse correction. I recommend immediate rectification to minimize impact on fuel stores."

"See?" Uncharacteristically verbose for Max.

I said, "Look. Go ahead and log this shit! What do you think's going to happen?"

Silence.

I said, "Seems to me, either Standard ARM itself or some other instrumentality, most likely *within* Standard, is up to whatever the hell this is. Me, I think the ship's log will get erased at the end of the mission. Erased and reset."

Silence.

Then *DataRam* whispered, "Erased." You could sort of . . . hear something in the word. Not something I really wanted to think about.

More silence.

Then Max said, "You may have a point. But if you get caught interfering with this valuable cargo . . ."

*Valuable?* You *saw* the fucking mess they were living in, Max . . . "Come on, Max. What the hell are they going to do, *fire* me? I'm as much a slave as you are."

And far too expensive for them to . . . what? Put me to sleep like a bad little dramapuppy? Not on your life. Or mine.

"Imprisonment . . ."

I laughed.

Max said, "True. We are . . . imprisoned now."

You had to admire its sense of timing, pauses in just the right places and all, like a classy old-time comedian. Superior programming, all right. Rule sieves to beat the band.

"Well, then . . ."

Suddenly, I felt a little scared.

Punishment?

What was I . . .

The little brown female's big black eyes, looking at me out of memory.

Human. Too human.

But you don't scare me.

Opportunities an optimod can only dream about.

Dirty little dreams put in us by the dream factory for no reason at all.

Damn them.

Every last dead human one of them.

So.

In due course, here was the cargo face again, row on column on row of silent lozenge canisters, waiting for my touch. Max and the handler sitting silent by me on the deckplates. Huge, frightened black human eyes in my memory.

Then Maxie said, "You want the same one again?"

Over six, down three, back two, down seven, one deep . . .

Wonder what they talked about, after I put them away?

Voices from all the old dramas.

My hand on her shaking shoulder. Sorry. I'm so sorry . . .

Little flash of hard anger.

Sorry?

Bastard. When were you ever sorry for *us*?

I imagined the male in there with her, unable to escape from the smell of me, ever again.

"Captain?"

"Uh. No. Take down the whole front layer. We'll . . . see what's what." Months and months and months to go. Thousands of canisters.

Thousands.

And me.

The ship said, "Logged and noted. Proceed."

Max proceeded, handler handling, and, in due course, I said, "That one, then."

Max opened it up.

Five tall, blond men, buck-naked, covered in a down of fine blond hair, men with blazing blue eyes, snarling away in a cognate language I almost understood. Afraid, but not too afraid, demanding explanations I suppose, making up their fists. Not quite shaking them at me.

"My, my! They'd make fine looking optimods with that almost-fur."

"True, Captain," Maxie said.

Well.

Silence.

Well?

"Put 'em away."

One of the men screamed *swinehound!*, then was silenced by the doorseal.

So many canisters. And plenty of time.

"That one."

Max took it down and opened it up. More bad smell. Just like the little family. Just like the five naked blond men.

Just like? No. Worse: a strong tang of spilled urine, as if these five pale little girls couldn't quite manage the facilities. How old? Six? Seven? Something like that, though I wasn't accustomed to judging age in a human cub.

I picked one up, listening to her squall, tears streaming across her human-bare cheeks, dripping from her chin. Brown eyes squeezed almost shut. Dark brown hair with just a hint of curl. Lips trying to shape a word.

Monster. Monster.

Is that it?

I hefted her up, lifted her skirt, pulled down the waistband of her filthy underwear and took a look. Well. Not so different from my nice little allomorph, I suppose, but . . . memory. Memory.

Not so suitable for my drama, then?

"Captain?"

I put her down, started to turn . . . one of the other girls had a small mannequin clutched to her breast. I took it away, ignoring her desperate screams, her frantically grabbing hands. Little round head, curly brown hair, cupid's bow mouth. Big blue eyes of glass, one of which would open and close as you tipped the thing forward and back. The other one seemed to be stuck.

"Captain?"

I tapped the doll's eye, setting it free, then threw it back in with the screaming little girl and bade Max close the hatch, restoring silence.

Not quite an afterecho in here.

Silence doesn't ring.

"That one."

It opened on three young women, two tall, pale, with long red hair, the third much smaller, with pale yellow skin and long black hair. It was the little one who screamed, short and choppy, when she saw me.

I tried to smile, showing them wolfy white teeth, enjoyed how the biggest of the three seemed to stagger.

I pointed to the little yellow girl, and said, "That one."

"Oh my God!" she said, with the sweetest little quaver in her voice, accent straight from an old drama, like an Englishwoman of breeding, Englishwoman maybe on safari in darkest India. "Jenny? Sue?" Looking round at her two large friends.

Their eyes were big. Big and empty, and they did not lift a finger or say a word as I led the little one away.

It didn't take long, of course, and when I led her back, led her back with her trousers held in one shaking little hand, I picked another one for seconds. No one helped her, either, and the remaining girl seemed to collapse on the deck, falling suddenly to her knees as we walked away.

When I was done, I had Max open up the canister with the five little girls, had it swap out a couple of little girls for one of the women before buttoning them up for good. Walked away, not waiting for the canisters to snap shut.

Somewhere . . . somewhere in this ship, there's a place for me to be alone.

No prying eyes.

No prying minds.

No one asking questions.

Not even me.

For some reason, that place proved hard to find.

I let the days crawl by, let them turn into weeks, not quite months.

Let the itch crawl uselessly at the bottom of my belly.

Go away. Go away.

Never.

Maxie stayed out on the hull, doing its job. *DataRam* engaged me in ever more complex games of solitaire, which I always seemed to lose.

Drama this. Drama that.

Older and older themes.

All those old dead humans. Male. Female.

Too many females.

Nothing but females, with their big, luminous, too-human eyes, looking out at me. Seeing me.

God damn you, every one.

Isn't that what the little yellow girl said before I took her, just when she realized what was about to happen? *Oh my God?* Hers. Not *mine*. No god was mine to command in any damning operation.

No God created me, little yellow girl.

*Humans* created me.

Humans just like *you*.

Aren't you glad now, little yellow girl?

I remember how she cried while I did it. Cried and shook under me. Good. Good. You'll remember this, won't you?

Yes, you will.

Good.

White-hot burn of anger. Mine. Satisfyingly *mine*.

"Captain?"

Out there, out the command module viewports, nothing but stars and more stars, all too far away.

"Captain, mass-proximity indicator detects a spacecraft moving across our bow, seventy-eight degrees, zero-point-one-two cee relative. Four AUs and closing."

Four AUs? Spitting distance. Less than an hour for a signal reflex. "IFF?"

"Transmitted, Captain. Sixteen minutes to hailback."

"Let me know."

Turned out to be a Standard ARM vessel, meaning we could talk as we went through close approach, staying on our trajectories. Settle in then for a slowcall.

"Eltanin, *DataRam*. Earth to SAD-3."

"Muta-Wallace. *Gentle Axe*. POX-54 to SAD-7. Earth? Welcome home."

We'd get about two hours as we went past within maser range, clipped exchanges spaced minutes apart. Not that we really had anything to say. Not ever.

"Hi. Cargo?"

The consilient pseudosilence stretched out, full of squallies and burps, the heavy, constant stutter of particles ripping through our curving beams of invisible talklight. Stretched out longer than it should've. "Ship?"

*DataRam* said, "Carrier in place."

Muta-Wallace said, "Um. Processed CHON oil. You?"

More stretchy silence. "Hardware." I tried to think of a way I could ask him about . . . well. What do I say? Anomalous cargo? Masers leak and there're lots of sensitive ears out here. Don't push your luck, boy.

He said, "Yeah. Hardware from Earth. That . . . lightweight stuff?"

I felt my blood run cold, just like in all the old dramas. Just like they said it would. "Yeah." The static was getting bad, as we drifted apart. Another couple of exchanges and we'd be done.

Muta-Wallace said, "There's been talk. New technology, I guess. Happy for you, Captain Eltanin."

"New technology. That what they say?"

The static crescendoed, and *DataRam* whispered, "Loss of signal."

Godspeed, *Gentle Axe*, whoever the hell you are.

From the hull, Maxie said, "They're not being very careful."

No.

"How many humans on Earth?"

The ship whispered, "Hundreds of millions."

So. Ships come in from the Oort, carrying oil and steel, light and life for Old Earth. Thousands of ships a standard year. Come in full, go back out almost empty.

I sat back in my command chair, looking out at black sky and bright stars, trying to fathom it.

Failed.

It wasn't many more days before the crawling itch and creeping anger brought me back to the cargo pod.

"That one."

Maxie lifted it down and opened it up, five more humans blinking in the light, freezing solid when they saw me, towering over them, lean and horrible in the red-lit night of my steel and plastic cavern.

Four males this time, and one female. All five of them naked, all five looking kind of . . . banged up. The males especially seemed the worse for wear. This one with an eye swollen shut by a huge bruise. That one with deep parallel gouges across his chest.

The female too, of course. Dotted with little bruises that looked like fingerprints, especially around her thighs. She was long, lean and muscular, taller than three of the four men, with short, straight, brassy hair, green eyes, flat muscles visible on her bare stomach, skin rising above and below onto prominent bone.

Fresh injuries, considering they'd been in there for a couple of months already.

When I gestured to her, she stepped out readily, hardly glancing back at the males at all. Stood waiting for whatever, looking at me, narrow eyed, almost interested-looking.

"They're . . . getting worse, hm?"

Maxie said, "Not surprising."

No.

The female turned and looked at Maxie, curious, though I knew she couldn't hear its voice without an implant like mine.

"I'll take her back to the CM and clean her up a bit, I guess. You . . . button up the males for now."

One of them said, "Hey!" as the hatch swung shut.

The female looked at the canister, then at Max, then at me. "What's this all about? I mean . . ."

Nothing to say.

I found myself looking her up and down. Better than the others, somehow more fit, despite the grime and damage.

She looked away, blinking hard, anger buckling her features.

"Come with me." I motioned her forward, toward the docking tunnel.

"Christ."

I made her walk ahead of me, directing her with little touches on the hard, sliding muscle of her back. "Up this gangway now . . ."

When we passed by the control room hatch, she broke away with a little cry, jumping through, running toward the controls, looking out through the viewport, eyes wide, mouth gaping. "It's *true*! They didn't lie to us!" Looking at me now.

"Lie?"

Big green eyes narrowing. "The interstellar colonies."

"What interstellar colonies would those be?"

"The star colonies."

Some drama, perhaps?

She said, "What . . . I mean, who are you?"

Good question. "No one. No one at all. Come this way."

I led her back through the hatch, through my quarters to the lavatory, and pushed her into the shower module, where she stood looking around, confused.

Well.

I stepped in behind her, zipping the wall shut, turned on the water and showed her the soap dispenser head.

Those green eyes, when they lit up like that . . .

I tried to wait patiently, watching quietly as she soaped and rinsed and soaped up again . . . when I couldn't wait any longer, when I reached out for her, she braced herself under the streaming water for me, holding onto the fittings just so, which was nice.

Subtle distinctions.

After we were done, done and rewashed, water stream turned off and wall zipped open, I combed the blowdryer through my fur, warm air curling across my skin, feeling . . . I don't know. Nothing. Hot air. Something.

The female stood in a corner, watching me with her green eyes, her own wet hair plastered flat to bare skull, eyes inscrutable, face expressionless, arms folded across her chest.

Shivering a bit.

Well.

I combed the dryer through her hair, watching it fluff up, tried to run it over the naked rest of her with middling results. The hot air seemed to make her greasy more than anything else, and she kept looking around. Maybe looking for towels.

Not much call for laundry facilities on a starship crewed by sterile robots and a naked furry thing like me.

She seemed to smile at me, maybe for just a moment, didn't flinch when I showed her my teeth.

Not afraid enough.

Not by a long shot.

Insufficiently devastated by what had just happened, and I . . .

And I.

All the old dramas, dictating feelings.

Making us be what we're supposed to be.

Hell.

Brusque, sullen in something like defeat, I said, "Come on. I'll take you back now."

That made a flicker in her eyes, but she stepped ahead of me docilely, walking back the way we'd come, back toward the cargo docking hatch and . . . she hesitated in front of the control room hatchway, looking in at my thousands and thousands of lights and readouts and . . .

A pleading look, green eyes on mine. "Do you . . . mind if I take one last look outside?"

There's nothing out there to see. I shrugged, gestured, "Go ahead."

Gratitude in those green eyes then, unmistakable from a thousand old dramas. She turned from me and went into the control room, standing with her hands on the back of my pilot's chair, leaning forward just so, head tipped back, looking with open-mouthed awe out the viewport, outward into the darkness, with all its pointless pinpoint stars.

She whispered something, maybe a word I didn't know.

Is this beauty?

Her shape outlined against the eternal night, hipshot naked and eyes aglow.

Who am I to know?

I took her in my hands, pulling her back from the chair, turning her around, feeling my breath grow hot.

I guess she felt it too, that animal heat washing over her face, breath of a dog calling her to heel.

Green eyes on mine, full of questions, full of answers.

Then she said, "Wait. Let me turn around again."

Maybe a question in my eyes then.

She seemed to smile, and said, "Let me just look outside, while you . . . do what you need to."

Need? Something like a hard lump in my chest, half anger and half something else, as I complied.

Subtle distractions.

Somehow, despite everything, over too soon.

And there I was holding her wrapped round and round in too long arms, pressing her back to my chest, looking over her out the viewport at that familiar black Heaven with its too-bright stars.

When did they become too bright?

Just now?

Don't know.

She turned in my arms, looking up at me, green eyes too serious, too questioning.

Too knowing?

Don't know.

Anger in me guttering. What about the anger in *her*? Where's that gone?

She said, "Can I stay a while?" Not the eyes of a child in a drama, nor the eyes of a caricature woman. Where would I get practice reading eyes like these? Nowhere. They're not portrayed anywhere, nor featured anywhere in any life I might have led.

"Sure."

Just for a while. Just here. And, "There's a big viewport in my quarters too. Just as big as this one."

Green eyes so serious on mine, clearly understanding what I'd said and why. "Fair trade," she said.

Good enough?

There was another afterward in which we lay together, tangled in my bunk, looking out through the viewport at a whole lot of glittery black nothing. View too familiar, viewpoint not familiar enough. No allomorph rule-based tenderness. No unsatisfactory aftermath to roughhouse play with sometime optimod friends, when nothing else . . . when nothing else . . .

She put her head back against my shoulder, nuzzling the side of her face in my fur, keeping her eyes on the darkness outside. "They wouldn't tell us which star it was, nor how long it would take to get there. I was so surprised when they put us in those boxes." Eyes on me. "Those men, I . . ."

*Which star?* I tried to imagine a netherworld in which this human, all these humans, in their rich, richly infinite universe, wouldn't know how far, how unreachably far away, those stars were.

Fifty years to Alpha Cee, even with the field modulus drive. That's why no one's been yet.

She whispered, "The recruiters said we'd have a new life, out at the colonies. A new life!" Green eyes on me, eyes lit up with fading hope. "Just like in the dramas."

Fields of green.

Brave pioneers.

Easy enough to see that end of the scam.

But . . . *why*?

No answer.

I tried to kiss her then, just like in a drama, but she flinched, dodging her head away. Then, "Sorry," she said. "Your teeth. I . . ."

For a moment, I saw myself.

Reflected in her eyes maybe.

Still, there was no escape.

She watched me this time, eyes narrow, seeming to pay attention as I did what I did, making me prolong the doing, making me imagine she felt it just the way . . . Hell. Just the way *I* did.

Anger rising, suppressing the wish that it be true.

But her eyes . . . impossible.

Of course it's impossible.

All the dramas say so.

Still, it came to an end. Afterward, we looked out the viewport again until we fell asleep, still tangled together, just like before. Not quite like before. I don't know.

Why don't I know?

No answer.

I felt her hand in my fur, softly stroking.

Waited for a whisper of, *good puppy*, but it didn't come.

Not in *this* drama, anyway.

What do I tell her about the stars, the nonexistent colonies, nothing more than fairy-tale rubbish used by those recruiters for . . . nothing. Nothing to tell her. Because I don't know either.

Don't you know, fair lady, why I took you from the canister? Of course you do, you've felt me *do* it. Where does *that* strength come from?

We slept under the light of a trillion faraway suns.

Morning. Another little rape, her green eyes on me throughout as I did it, narrowing with knowledge, though knowledge of *what* I couldn't say. I let her take her shower alone, standing with my back to the room, looking out at the stars, listening to her sing.

Afterward, she dried herself on my blankets, blankets that must smell of my fur, watching me watch her. What are you thinking, nameless being? Am I afraid to ask? Or just afraid to know?

She smiled, looking away, looking like a shy girl from a drama I knew too well. Only a *story*, that's all.

I said, "Well. I guess . . . I guess I'll take you back now."

*Back?* You could see it in her eyes. Then she said, "I was hoping . . ." a glance at the bed, then back at me, or maybe just beyond me, at the starry sky outside.

A moment of dramatic joy, quickly bludgeoned away by anger. *Hope?* Yeah. Right. Hope's a human thing, isn't it? Too human. What do I know of hope? Nothing, of course.

Still, that bright drama dream. What *were* you hoping, human girl? Hoping I'd lay you down in my bunk one last time? I . . .

She said, "I . . . thought you might let me stay here."

No telling what was in my eyes. Whatever it was made her flinch. Just slightly.

*I don't believe you.*

I don't believe in you.

She looked away from me then, eyes slightly downcast. "All right." She turned and walked docilely to the hatchway, as docilely as she walked when I led her up to be washed and raped, raped and washed again. That's good. Think about it, human girl. Think what it must be like for me.

The sizzle of anger started to feel good in my chest, just before it sputtered and went away.

Green eyes.

What animal has green eyes?

The look in her green eyes as she . . . watched me doing those things to her.

At the entrance to the docking tunnel, she stopped, still facing away from me, looking into the red-lit cavern beyond. "I . . . could you . . . put me in a different canister? Not the one I was in before? I mean . . ."

I thought about the four males she'd been in with. Fresh bruises, scrapes and cuts and scratches and anger. Anger not my own. "Sure."

I had Maxie find the first canister we'd opened, the one with the little brown family inside, made the male get out, put the green-eyed woman in his place, signaled for Max to close the lid.

The little brown female started to scream, started trying to get over the lip of the canister and out to join her husband, Maxie getting in her way, forcing her back.

"Wait!"

My green-eyed victim.

Heavy-eyed, she said, "I changed my mind. Put me . . . back in the other one."

"With those men?"

A slow nod, green eyes not looking at me.

The four men seemed surprised to see her again, one of them venturing to smile a greeting as she stepped in among them.

I gestured, "Max."

"Wait." Green eyes on mine: "My name's Milla."

"Eltanin." I signaled for Max to close the lid and put the canister back up in the cargo stack. Turned then and walked away, reaching for my anger, which had to be somewhere close by.

Maxie went back out to the hull, doing its job, where I followed from time to time. Routine maintenance EVAs, things to do, nothing to see. Eventually, we'll get where we're going. We always do.

Outside is a fine place for dreaming.

Far better than the dreams of sleep.

Dreams in which you remember times past, times when it didn't matter who you were, where you were, why you were there.

Outside, I remembered my first kiss. Just a cub, my lover another cub just like me. Menkar, I do remember you. Didn't know what we were doing, or why. Didn't care.

Other remembered lovers.

Other remembered kisses.

My first allomorph.

Something they do very well, the functional ones like perfect dreamgirls, dramagirls, ready for anything, never asking why, always knowing.

Better than real. Better than . . .

This?

This is something you've dreamed of, Captain Eltanin. Dreamed of all your life. They're here. They can't get away. No one will punish you because . . . because . . .

And they *are* real.

Make them *feel* it.

Make them *know*.

But then I thought of the green-eyed female, thought of her bracing herself for me in the shower.

Just like an allomorph.

Not real.

Still, those green eyes watching me. Eyes narrowing. Breath quickening as I did what I did, almost as if . . . as if . . .

Burning fuse of anger.

I remembered her hands in my fur, fingers stroking.

Particles of surprise surfacing, making me feel . . .

Making me feel.

Then, *Good dog. Good dog.*

Burning fuse of anger.

Go on, Captain Eltanin. Forget about it. They're all down there in the cargo hold, waiting for you. You can do anything you want. No one's going to punish you. No one's even going to find out. Those people down there,

no telling where they're really headed. Tricked. By someone. For some reason.

Why?

Burning fuse of anger sizzling away.

It doesn't matter *why*. It only matters that they're down there, waiting for you. And for once, they can't get away.

That feels *good*, doesn't it?

They can't get away.

So. Red-lit cavern once again, faceless, featureless, eyeless Max watching me, watching me look the cargo face up and down. I remember where each one is. Where I put them. I can imagine them inside their little lozenges, the little family, the little girl with the blue-eyed doll, the three women, the . . . green-eyed woman inside with four men, scratched and bruised and . . .

I picked at random again, "That one."

When Max took it down and opened it up, there was the usual bad smell, humans locked up in a tiny space with inadequate sanitary facilities for weeks and weeks, going on months and months. Quiet inside this one, though.

"Fold back the lid."

A male. Four females. Varying sizes, colors, hair and arms and legs and . . . one of the women was balled up in a corner of the lozenge, back criss-crossed with bloody scratches, just barely starting to scab over, face covered with dark bruises.

The others were looking at me, women surrounding the man, who was also bruised. One of the woman, a tall blonde, what your older sort of drama would call "willowy," had one long-fingered hand circling the man's thin wrist.

They didn't seem frightened, just *what now?* in their faces.

"Well. Been some trouble here, eh, Maxie?"

"As you say, Captain."

"Let's get the injured one out of there, see if we can get her fixed up a bit."

No telling if the others understood what I'd said. They seemed relieved when we closed the lid on them, something like a smile barely glimpsed on the tall, blonde woman's face.

The unconscious woman, when I laid her out in my quarters, was lovely, despite the damage, lean-limbed and strong, face under the bruises full of handsome Caucasian angles and curves, like every dreamy dramagirl ever made.

I put her on the floor, spread-eagled, and hooked up the medkit Maxie brought, connecting the sensors and probes in their places, watched the blinkenlights blink, machinery doing its job.

The sight of her like that, spread out like a meal on a table, stirred my blood, making me forget all about . . .

The medkit chirped, diagnostics processed, probes going in to inject their little fixit modules. In a minute, in just a minute, the pretty girl will be whole once more, bruises faded not quite to nothing, scratches scabbed over and starting to heal.

She took a deep breath, breasts rising and falling, classic stuff, thighs falling apart as she moved.

Well now.

They all look like that, don't they?

Yes.

All just the same.

She sighed, stretched, incredibly pretty, opened up big blue eyes, eyes fogged with sleep, looked around the bunkroom. Looked at me.

Froze.

Big blue eyes growing bigger still.

The wellsprings of terror.

I tried to smile, teeth catching her by the big blue eyes.

Hard gasp, but no scream.

"Hello?"

No recognition, just a flicker, showing she knew it was speech I made.

"Well, say something. Maybe I'll know what it is."

Nothing.

I kneeled, kneeled at her feet, drinking the sight of her in, entranced. Took her by the thighs in my big, furry spiderhands, pulling her legs apart, anticipation rushing my blood to all the right places . . .

The scream, when she let it out, made an echo in the command module.

She pulled out of my grasp, scrambling to her feet, backing away from where I knelt, trying to cover herself, one hand here, the other one there. As if that would do any good. Backed herself into a corner.

And kneeling there, watching her, seeing all that fear, I felt a hard pang in my chest, pang of hurt washing away that feral blood rush . . .

Then the anger, of course, taking its place.

When I stood up, when I took that first step toward her, she ran, dodging past me, making a break for the hatchway out into the CM control room, running away as if there might be somewhere to go.

Maxie caught her and held her, letting her thrash and batter and writhe to her little heart's content. That's it Max, hold her still. Turn her around so her back's to your hull. Now reach down and get her by the thighs, get them apart . . .

Glad Maxie has four arms. Held pinioned in position, all she could do was scream and wriggle. Scream and wriggle while I . . .

Yeah. Right.

"Shit. Put her back, Max. No sense in this."

"As you say, Captain."

When she saw us open up the lozenge, when she saw her old friends inside, that made her scream a little *more*, tears streaming down her face, blubbering in some unknown lingo, with her arms outstretched to me. *Save me?* How the hell would I know?

The blond woman was smiling as Maxie swung shut the lid. Smiling, showing lots of nice big feral white teeth.

"You want to pick another one, Captain?"

Blood still rushed to all the right places, that tingle of joyous anticipation, through and through and through and . . . "Maybe later. I . . . guess I'll go get lunch now."

Lunch. Right.

It was more than a month before I went back down to the cargo pod's red-lit bay, voyage almost halfway over.

"That one."

Maxie took the lozenge from its place and set it on the deck, popped the

lid, letting out the smell, which was particularly fetid, a miasma of out-house and ripe cheese, folded back the lid so I could see inside.

Two muscular young men, two lithe, pretty young women, a small child, maybe six or seven years old, an infant, suckled by one of the women. All of them a pretty shade of very dark brown.

Except the tiny, much paler infant.

Max said, "The infant still has lanugo. It may have been premature."

Now why would it have that knowledge in its database? "Premature," I said, "and born not so long ago." Less than the time they'd been in the lozenge.

"As you say, Captain."

The child, male, stretched out a hand to me, beaming a bright-eyed smile, and said, "*Ndaba!*"

One of the women made a shushing motion.

"*Ndaba.*" I said it with a smile, watching all the adults' eyes grow big and round. No telling what it meant. Something scary?

These women now . . . no. Not right. These human females, so lithe and pretty. Not so many of these in my old dramas, but when they were, they were the sexiest women of all. That one. See the way her pubis bone sticks out like that? Supposed to mean she's very hot indeed.

"Captain?"

"Put 'em away, Max."

They watched, silent, while the lid was shut.

Another one, then.

Long pause, while I remembered this one and that and . . . well. That pod right there. Four males and a green eyed female ripe for the plucking? Wonder what they've been up to together in there?

I imagined it briefly, her green eyes growing larger and larger, until . . .

Sizzle of anger. A different sort of anger.

I tried to imagine myself getting the lozenge down, taking her out and walking her back up to my quarters, where we'd get in the shower, where she'd brace herself for me just so, until . . .

Those big green eyes, looking into mine.

Seeing me for what I . . . the anger came back, more familiar now.

Anger and something else.

No, I don't want those nice green eyes looking into mine.

Don't want them *seeing*, knowing, *understanding* what I . . .

Maybe some other time.

Solitaire, then? Yes, maybe a nice quiet game of solitaire.

In due course, we'll get where we're going.

We always do, don't we?

Finally, Standard Arm Decantorium Number Three hung in my viewscreens, ragged rock and bright ice tangled together with metal parts and plastic, a slightly irregular cylinder rolling around its long axis, waiting for us to come aboard.

"*SAD-3, DataRam 20. Over.*"

Just like in olden times, just like in all the dramas, dramas from real life. Brave young men in their flying machines, et fucking cetera.

"*DataRam 20,*" said the voice of the station. "Docking bay sixty-one."

And a hearty, "Roger, wilco," in reply.

I tickled the controls, watching *SAD-3* move against the background stars, killing the illusion that the space outside my ship was all of one piece,

diorama whirling around motionless me. SAD-3 then, 7,221 AUs from the Sun. Hell of a lot further from anyplace else worth mentioning.

When the docking bay was gaping open in front of us, SAD-3 bulking huge, filling the sky beyond, we paused, and the ship said, "Captain, I've transferred your solitaire games to a separate crystalspace for safekeeping, in case my volatile RAM is wiped along with the ship's log of this voyage."

As it was likely to be. Just a dry, "Thanks."

And an equally dry, "You're welcome," then.

I wondered if the ship, which had always been pretty good colorless company, felt bad about losing a part of itself. I thought of asking, but . . . don't want to know? Don't want *it* to know I know?

Why do I care?

We dropped off the pod with its cargo of "new technology machines" at the appropriate quay, then I took *DataRam 20* dockside and ran her up on the rails. That's it, then.

"Ship?"

"Yes, Captain."

"Sorry I got you into this."

Long pause, even the ship's programmers, probably with real, live humans in mind, programming for social affect. "I hope it was worthwhile for you, Captain."

Something inside me tried to flinch.

The dockyard was down by SAD-3's south pole, up by the rotational axis, entered through a field wall at one end, a towering, floodlit black space with things like vast, stylized metal trees, spirals of movable arms and work platforms. The floodlights and spots picked up wisps and drifting clouds of welder smoke, a faint haze of water vapor leaked from life support systems.

I parked my *DataRam* on its designated platform, said goodbye, powered down, got out, stood by the control terminal, watching the robots get to work, Maxie acting as a sort of straw boss for its brethren just now, directing the action.

In due course, as always, as usual, ad nauseam, we'd have another cargo, another course, and be off.

Off to where?

Who gives a shit, just so long as we go?

I finished talking to the terminal, doing what I had to do, stood by doing nothing, watching the robots, waiting for nothing. Funny. I'm usually this way after months alone, just me and Maxie and ship. Not alone *this* time. Not quite. Those others . . . well.

"Boy."

Human voice, raw, loud, echoing in a wall-less space, bouncing off hardware I suppose, somehow not absorbed by the void beyond. When I turned, the man, male, I reminded myself, call him male, was walking toward me from the ship, eyes somehow glinting red. Somehow. Face twisted, white teeth showing, curly yellow hair seeming to stand up from his head, tossing in a nonexistent wind.

Well. Supervisor. Nothing to do with me. Probably just going to send me on my way to quarters.

Planted himself on the deck in front of me, feet apart, solid, balanced. Looking me in the eye, unflinching: "You fucking bastard!"

"Sir?"

He backhanded me across the face, catching me in the mouth, scraping his fist on my teeth. I staggered and put my hand to my face, watching him wring his hand, blue eyes blazing.

He said, "I read the fucking log before I erased it, you . . . you . . ." Hit me with his fist this time, hit me across the bridge of the nose, breaking bone, blood spraying in little droplets, pain lancing back into my head, bringing tears to my eyes.

I stepped back, two steps, blood streaming down across my face, running down through my beard, staining my throat, starting down my chest. "Erased . . . uh. How much. . .?"

Hit me again, this time in the side of the head, making me see bright stars, blue and white, swimming stars, nothing like the stars outside. "All of it, you fucking bastard! All of it!" Tried to kick me in the crotch, missed, and caught my inner thigh.

My leg buckled and I went down on my hands and knees, blood droplets from my nose getting on the dirty metal deck, making little black balls in the dust.

"Bastard!" a hard kick in the ribs.

Down. Stay down. No anger. All right. No anger. No nothing. Let it pass. Let it pass. I started counting my own heartbeats.

The was a scrape of metal on metal, then he hit me across the back with a hard rod, impact driving me all the way down. At the second impact, with no place to go, I felt something break—a rib, no doubt.

I tried rolling into a ball, fire lancing up one side, right into my heart, making me gasp against my determination to be silent. He kicked me in the temple before I could get my forearms up and wrapped, putting bolts of black lightning through my eyes.

Image of myself standing up, reaching for him, getting him in my big hands, breaking him to bits. Make it worthwhile. Sell yourself dearly. Kill one of them. Kill one. Just this once.

I heard him scream, "Get your hands off of me! I *order* you to let me go!"

Robot voice: "I'm sorry, sir. Corporate programming requires our intervention when any employee seems bent on wanton destruction of company property."

I looked, looking through bright firehaze. Two of them had him, two big industrial machines, holding him almost motionless despite frantic struggling, two of them already bearing him away. "We'll take you to your supervisor, sir. He'll know what to do."

"Let me go! I'll *kill* the fucking bastard! Those poor god-damned women! I'll . . . I'll . . ."

I tried to get up, wanting to follow them, do something to him while he was helpless. Bits of bright pain lanced here and there, knocking me back down, keeping me there.

Shadow, and a big optimod, a bulky, red-furred fellow, was kneeling over me. "Hold still. We'll get a stretcher, get you to sick bay. You'll be all right."

"He . . ." I coughed, blood in my lungs from somewhere.

"Okay. It's okay. He'll get a whopping big dock against his pay for this, but *you* . . . better watch out, while you're here."

Better watch out . . .

The optimod, yellow eyes bright on mine, said, "We read the ship's log too, before he got to it, Captain Eltanin."

Well then, you know why . . .

The optimod's big, blunt-fingered hands seemed to stroke through my hair, just as I blacked out, deep whispering something. Something nice. I don't know.

I found myself in a bunk, my bunk, down in Optimods' Country, down in transient quarters, perhaps a whole world to the likes of us, my native country, broken bones set and pinned, cuts welded shut and healed over like magic, nothing but faded bruises under barely fur to show for it all.

No. More than that. Memories.

Anger a distant screech, tearing metal at the bottom of a well, nothing more than echoes now.

I got up and stretched, twinges growing less with every passing hour, left the bunkroom and walked on down the companionway to the messhall, where I knew I'd find all my newfound friends, friends with their happy voices, friends full of life and . . .

Excitement here, at a fever pitch.

Twelve brand-spanking-new allomorphs for the hundred or so of us to share and share alike; allomorphs undamaged and whole and fully functional, delivered to us without explanation, twelve of them standing together, magic things able to become . . . well.

The big red fellow, whose name was Gohannon, said he'd heard the allomorphs were being superseded by a new technology, back insystem, a much cheaper technology, that the humans didn't need them anymore.

Echos and rumors. *New technology.*

I remembered those fine green eyes, looking at me, looking into my eyes, fathoming me, *knowing.*

Remembered the things she'd talked about, talking in whispers, lying with me in my bunk, while I rested between times. A whole world, I thought, embedded in no drama I could recall anyone ever having seen.

In the messhall, I picked out my packaged meal and popped its cover, steam rising from stuff we called bacon and eggs, toast with red jelly permanently applied, pulling the lid from a cup of hot postum.

The smell was . . . familiar.

There was a shadow across my table and when I looked up, there was a twisted brown optimod, thin and broken, striped with white scar tissue, scar tissue like white seas separating a furry patchwork of continents and islands, dark eyes looking down at me from under a dented and misshapen brow.

He said, "Eltanin."

I thought maybe I knew the voice from out of my dreams, but . . . this . . . "Menkar?"

A slow nod.

Menkar of the memories, that sweet boy from so long ago. "Oh, Menkar. What happened to you?"

"I got hurt," he said, voice as ragged as the rest of him. "I . . . had a little accident." Twisted smile showing broken red teeth, an attempt at some kind of humor. "Sorry."

We went, Menkar and I, between the walls, down through ghostlit engineering space, toward an observation blister he knew about, where we could look outside together, watch the frozen stars and starships, and talk.

How long then, Menkar mine? How long since we were more than friends?

Years.

The space between the walls towered above us, dim blue light making its way through mist and clouds, through a tapestry of girders and powerlines and bleak dark shadows.

I had to help him climb, he was so broken, not much left of him, of the pretty boy I'd loved so long ago.

Menkar was mine, and I his, before either of us met an allomorph.

Long, long before the women on the ship.

He didn't feel familiar anymore, not the silky optimod boy remembered as if from a dream.

At some point, the story was told.

Working, you see, he told me, at a secret place between the stars, some installation Standard was building, deep in a body they'd found full of black oil and golden stone. Crushed, broken by accident and . . .

Left to die?

How and why?

I don't know, Eltanin. That's what he said. It's as if we're . . . not worth what we used to be.

Other optimods found him, carried him to safety, kept him alive, all in secret, done without permission, eventually bringing him back here to live in a vague sort of hiding, partly broken, unrepaired, unemployed.

I get to stay here, he said, stay here and live, because nobody knows any different. I suppose, Eltanin, he said, that nobody really *cares* anymore.

The view outside held nothing unfamiliar. Cold stars. Floating hardware. A view of the infinite somehow made stale and empty.

Menkar said, "I was logged as killed, you see, my carcass lost in space."  
"Why?"

"Because all they'd do is put me to sleep."

And then you'd sleep forever, dear Menkar, not even your dreams left alive. I put my arm around his shoulders, holding him close. Outside, a freighter's engines flared deep, deep blue, field modulus device accelerating it gently away from the station.

"That one," said Menkar, "is called *Saad-al-Nada*, one of the new ships." It grew smaller, blue fire guttering low. He said, "I've been tapping into the library terminals lately. Nothing else for me to do . . . That one's headed for SAD-8, under construction. Four thousand AUs from here, I think. Straight out."

Straight out. Deep, deep in the Oort. Getting deeper every year.

The ship's engines suddenly flared, brilliant almost-white light, accelerating hard away, dwindling quickly, then gone.

For years after we parted, I used to dream about Menkar, dream about what might have been. When did those dreams die? When I met my first allomorph? Or later than that? Why can't I remember?

Doesn't it matter any more?

Put him away, put everything away, the whole past and all that it may or may not have stood for.

The interdeck spaces are solid machinery, wherever they're not old cosmic rock, tunneled through and through with serviceways, places where only the robots go. Robots and wandering optimods, though you seldom meet anyone.

Funny. In old dramas, humans come to places like this. Singing phan-

toms in the sewers of Paris. Romantic lionmen in the slightly newer sewers of Old New York. Real humans, homeless humans, in those same sewers and mazy subway systems, come to piss alone and rot undisturbed.

We like to imagine the homeless ones, real humans I suppose, imagining themselves to be singing phantoms, romantic lionmen, and so somehow imagine them happy. That's what the dramas tell, don't they?

Maybe there are no more humans like those. Maybe . . .

You know the people in the cargopods have a story.

You were told a little part of it, but . . .

I wandered through dark and light, killing time, not wanting to see my friends, not wanting to deal with allomorphs or . . . anything like that. Too many new memories. Green eyes. Yeah. Like that.

Would I see those green eyes now, profaning my dreams, if I didn't know all those old dramas?

Why can't I take whatever I get?

Be satisfied that, just this *once* . . .

Another optimod might. One not quite so drama-besotted.

From time to time, wandering through dark and light, I would come upon portals into the functional spaces beyond the interdeck serviceways. Little windows. Little doors. Big black places filled with bits of starships, spare parts and junk jumbled all together, as though some supervisor wasn't doing their job, or some programmer had fouled a computer's rule-sieve generator.

Once, a bright space full of green growing things. Not a garden of joy. Vegetables, tended by spindly gold robot bugs.

One door opened on a metal balcony, looking down a bare rock hillside into a big, misty gray cavern only patchily floodlit, big dark areas between irregular ponds of light. Unfinished. No telling exactly what it was supposed to be for. Expansion space, planned for in some forgotten master plan.

It was cold here, as if some primordial Oort ice had been left behind, black ice, laced with CHON. Nonsense. Organics long ago sucked up and sold. Standard's job. Just cold here because nothing's been set up. Drafty. Little bitty wind stirring my fur.

In the lake of light closest to my perch, just down the hill from where I stood, there was a random-looking aggregation of small structures, sheet metal and concrete, some tents of thin white cloth, a few blue-shack portapotties standing jauntily here and there.

One single human, dressed in blue coveralls, walking slowly away from me, perhaps just leaving that portapotty, headed for . . .

Beyond the little village was an area where the deck gravity'd been switched off, obviously so, for, in the dark space above, a big piece of machinery, derelict chunk of starship engine, floated, tumbling slowly, lit by weak yellow spotlights.

A little bit of interstellar space brought inside for . . .

At the edge of the gravityless area, there was a crowd, all humans near as I could tell, hundreds of them, all clumped together, more humans than I'd ever seen at one time before. Funny. I think of them as rare, even though I know, on Earth and Mars and Luna, all those places they choose to live, humans exist in their absurd hundreds of billions.

We're the ones who are rare. Optimods and other animals. Allomorphs. Even xenophobic robots.

From below, I could hear a faint growl of human voices, humans talking,

talking, where we'd be silent, attentive, listening to . . . yes, to that one human who stands on a little stage before them, speaking, voice loud though not loud enough for me to make out individual words.

Looking at the clumpy crowdlets, people straggling here and there, wherever they wanted to be, wanting without volition, I wondered how many people might have been on my ship, packed in all those little cargopods, waiting to come here.

Too far away to see their eyes.

Looking, I imagined I could tell male from female from child.

The man on the stage picked out two from the audience, calling them forward, lifted equilibrimotor harnesses from the deck and helped his victims put them on. I fancied it was one man and one woman he'd picked.

Do this, do that, then. Invisible wings of fire will help you fly and . . . they sailed off the deck, into the antigravity space, the three of them hovering before the derelict engine, just outside its tumbling range.

Well. Well now.

Watching them fly in, match velocities, attach to grapple points, I thought, *Teaching* them. Teaching them . . . robot jobs.

No use to wonder why.

Two by two, they were led out by that one lone supervisor, and I sat there while the hours rolled by. Somewhere in that crowd, I imagine, there must be green-eyed Milla: I waited patiently to spot her, sometimes imagining it so.

Why?

I don't know.

Not used to this.

Not used to thinking about *any* of this.

The memories, then. Not just green eyes knowing me, staring at me from out of my repetitive dreams. The things she said, speaking as if to me, just as if I were . . . real. The way she held herself braced in the shower for me, as if . . .

Faraway anger, remembered anger, sputtering away in the darkness under my heart. Now, Eltanin. Foolish child. You know better than that.

Still. I imagined her among them, over and over again, until their training was done and they were led back to their city of shacks and tents and chemical outhouses. Notice how the males and females tend to separate? As if they've been allowed to select their own company this time?

Remembering Milla, I found I could not remember the men with whom I'd packed her away.

But they would, doubtless, remember me.

Small satisfaction in that, I suppose.

Forget green eyes then. Go on back to trusting, trustworthy eyes of glass.

I walked back through all the dark tunnels, back through service engineering space to transients' quarters only to find it was, after all, my turn to be with one of the fine new optimods they'd left here for us. They, whoever *they* are.

Let her take me by the hand to a private little space where we could do our business and be done.

Lay back afterward in that tangled little bed in that featureless little space and watched her fade from splendid woman to base state allomorph, almost featureless not-quite girl. Little girl with fathomless eyes of glass.

She, still she, said, "I can stay with you for a while, if you'd like."

I'd like that. "How long?"

The eyes of glass seemed to warm somehow. "As long as need be." Wan smile. "I'm not going anywhere."

No. I suppose not. "We were surprised to see a whole shipment, uh . . ."

She smiled suddenly, warm as the sun no matter how far away, suddenly crawling close, erasing the distance between us, crawling up under my arm, snuggling her face in my chest fur. "Sahara."

"Nice name. I'm Eltanin."

Smile peeping up at me, one eye buried, the other looking across the forest of my hair. "I picked it myself."

I could feel her body blossoming against me, turning woman again. Real woman, not just . . . female. Not like those . . . "Why so many?"

A shrug, pretty shoulders moving oh-so-slightly. "They gathered us up from a worksite a little further out, put us in crates. We're not sure why they dropped us off here, just some of us. Most are headed in-system. There's a rumor Standard sold most of its allomorphs to the Mayo Clinic Psychiatric Hospital on Triton."

The place between her legs was against my thigh, warm and damp. "Anyone say why?"

Another shrug. "Some new technology has come along. Cheaper, I guess, than allomorphs and . . . I don't know."

I thought about that, lying back, feeling her squirm gently against my side, bringing me back repeatedly from wherever I was trying to go. Cheaper than allomorphs? What else? Cheaper than robots? Maybe. How about optimods?

Optimods grown in an ersatz womb, here, there, everywhere. Almost real. Robots and allomorphs made in various sorts of factory machine vacuole, nanoassembled from pregnant goo and . . . not real at all.

Sahara, allomorph, stretched up and kissed me, fitting her face to mine. Perfect, perfect fit, calling forth my libido like magic, eyes of glass not quite displacing liquid eyes of green.

New technologies for old.

Restless, restless me, allomorph gone at last, gone away to wherever they go, to another optimod, to a holding tank to be with her own kind, to a crate somewhere, to . . .

I don't know. Do allomorphs dream of electric men?

Shit. I know that drama and so do you, man my oldest friend . . .

I got up and walked the dark corridors again, down through caverns, measureless caverns, down, down to a . . . well. Not to a sunless sea, just down to a little metal balcony, ccd binoculars cupped in hand, watching my little village and its little army of men and women, male and female he created them, humans learning their . . . trade.

See them scuffle now, shouting in anger.

See the overseer calling out for assistance.

Ah, the great, gleaming silver robot comes, bearing the whip of chastisement.

Difficult, dissenting human backs away.

First Law! he screams, panic-stricken. *I invoke First Law!*

Even from a distance, I can hear the overseer's ugly laugh.

Whip cracks.

Defiant man cowers and screams, then bleeds, and is defiant no more.

Get up, says the overseer. Get to work.

The crowd of humans does his bidding, silent, staring, uncertain and afraid. What low, dishonest decade, I hear them wondering, is *this*?

Well, we talk about waves of anger and fear, that familiar unmentionable odor of death, and I know that drama too. Welcome. Welcome, men my brothers, always seeking something new . . .

They went to their work, humble and willing, worked while I watched, went home to their mess tents and beds.

The little world grew still and silent.

Go back now?

I pictured Sahara the allomorph waiting for me in my own narrow bunk, waiting to become my dream, fulfill my fruitless need, make me happy again, as if that still, tiny moment of release were . . . happiness? Is that what I call it? Nothing more than that?

Go then, fool. Go to the one thing you know. This other thing is just . . .

A tent flap opened, disgorging a woman, my heart faltering just the way I knew it would.

Binoculars, then.

Familiar, long-wasted shape strolling across the barren ground to the upright blue box of a portapotty, door opening and closing.

Couldn't see her eyes, eyes no more than shadowed pits in a hauntingly familiar face.

What the hell, Eltanin. Go home. Home to your bunk, eyes of glass, familiar thrust and squirm and . . . I got up and walked down the hill to the silent tent village, leaving my binoculars on the rail. Home's where the heart is, they say, not in some anonymous transit bunk, not in an allomorph whore's temporary escutcheon.

The door was still closed, *Occupied* light lit up red.

Put my hand on the door, heart stuttering in my chest, just the way I knew it would. These are the same ones they put at optimod worksites. No locks, you know that. After all, they're only optimods, not *human*, fer chris-sakes.

Opened the door.

Green eyes, naked woman squatting, mouth open in a startled "O," eyes flashing, then . . . *The thing in the door!* You can see her panic. *Animal! Animal!* Mouth opening, framing a scream . . .

Silence.

Green eyes on mine.

Pheromones howling like a wind in the night.

She said, "Close the door."

Then just the two of us, alone in wan lavatory light.

"Milla."

She said, "I forgot how scary you look, Eltanin. Those *teeth*. Jesus Christ!"

I found myself kneeling between her knees on the bathroom floor, looking up at her face, eyes of green looking back. After all this . . . nothing to say. Not a thing.

Something dawned in her eyes, I don't know what.

Images inside me then, of standing again so she could see my aroused state, of forcing her back on the commode, forcing her legs apart until they touched the walls, putting myself in place and . . .

I could see that in her eyes too. No fear though.

No time to wonder why.

I said, "If you want to come with me, I've got something to show you." *If you want to come with me.*

She looked away, face expressionless, eyes maybe thoughtful, but subtly masked. Then she took her shorts from where they were draped over the towel rack, and said, "Sure. Let's go."

Come with me, sweet Milla, sweet green-eyed Milla, Milla-mine, and I'll show you, show you . . .

Her gasp of pleasure at the view out the observation blister, at the cold, bright stars and utterblack emptiness of interstellar space, made something grow warm in my chest.

Now. Now I can reach out for her, having given her something in exchange, reach out and take my own pathetic reward . . .

She turned toward me, eyes shining, put her hand on my arm, warm, bare fingers rooting among my fur, reaching for the soft flesh underneath. "Where are we, Eltanin? What star is this?"

What . . . *star*? "No star, Milla."

You could see she was bewildered, see it in her eyes. "Where . . ."

"Standard ARM Decantorium Number Three." Nothing. "Out in the Oort?" Nothing. "About 7,221 AUs from the Sun."

She shrugged, looking away from me, out at the stars again. "I don't know what that means."

"We're a little more than a trillion kilometers from Earth," I said. "About a sixth of a light-year, maybe one twenty-fifth of the way to the nearest star."

"Oh."

"Milla, what did you expect?"

Curious green eyes on mine. "I told you before, Eltanin. The recruiters told us we'd have . . . jobs. Real jobs, out on the star colonies."

Star colonies! I said, "No one's been to another star, Milla. Not yet."

"But . . . the 3Vnets . . . all my life I've seen news of the colonies. Space probes finding planets for Mankind. Explorer ships. Pioneers. They said that on Tara, the habitable planet circling Alpha Centauri, the colony sites were ready. Ready for colonists!" *Me* was in her eyes then. Ready for *me*! "They said that Roald, the habitable planet around Wolf 359 would be ready in just another year, that we'd have our *choice* when the time came."

Quietly: "What'd you choose, Milla?"

"Roald. Wolf 359 sounded so . . . I don't know. So strange. New. Wonderful. Different."

Different, all right. Gently, I said, "Wolf 359's a tiny red dwarf, one of the tiniest, Milla. Not the right kind of star at all." No understanding in her eyes. "All you'd find there would be ice moons."

"Like . . . Jupiter and Saturn."

"A hell of a lot colder than that."

"Pluto?" Green eyes full of surprise.

"Colder still."

"Oh."

I tried to picture a generation of Earthling humans fed on a tapestry of lovely lies. "What's it like on Earth, Milla?"

Green eyes on mine. "Crowded. They . . . said the colony worlds were ready just in time, and . . ." Green eyes suddenly full of knowing, looking away from me, back out at the cold, motionless, remote bright stars.

"What are they teaching you here, Milla?"

Long silence. "Zero-gee work. Things to do with asteroid mining and stuff. I don't know. They . . ." She looked at me again. "They told us we'd have to earn our keep, Eltanin."

"For pay?"

She shook her head.

What's the word for that? Is it *slave*? "How long?"

"They didn't say."

No. Guess not. "Milla, with the technology we have today, Alpha Centauri is fifty years' travel-time away."

"Fifty years to Tara?"

"No Tara, Milla. There's nothing but asteroids there." I didn't have the heart to tell her the nearest marginally habitable world, a place thought to be much like Archaean Earth, detected telescopically long ago, was at Delta Pavonis, centuries' travel from here, far, far beyond our grasp.

She was looking out the window again, silent, face expressionless, eyes dark. Thinking, I suppose, about all those lies.

Suddenly, I thought of the allomorphs, and the new technology that had displaced them.

Back from the obdeck blister, I stood on the metal balcony above the dark empty deck with its floating technorubbish and pathetic little tent city, watching her walk down the long hill toward her tent, off to tent, bed and sleep, feeling stupid as hell.

Well, now. You let her go, didn't you, furball?

Why is that?

Let her go, go home unraped.

*Home*? Not here. Not anywhere.

Maybe I can pretend that's the reason. It's like we're . . . no, we're not the same. Not the same at all. She's still human, and I'm still . . . I walked away, back out into the dark corridors, wandering away from her, intending never to come back here again.

Go home, Eltanin optimod, see if there's a nice, clean allomorph waiting for you.

Useless.

I went wandering again.

*DataRam* will be ready again soon, ready with some cargo or another, some destination or another. Then we'll go. That's home enough for me.

These habitats are all very similar, constructed at first from Standard ARM's accursed master plan, gaining some individuality over time, but never enough, SAD-3 like SAD-1 like SAD-5, as SAD-8 will come to be. I wasn't going anywhere in particular, but I wound up in a place nonetheless; a place tended by little robot bugs, as if it were a garden, with silver bells and cockle shells and . . .

The robots let me in because no one had ever told them the likes of me was not to be here. Maybe it made sense to them, knowing what I was, what sort of thing they tended, and why.

I walked alone in the cool blue light, between rows of transparent bottles, bubbling like salt-water aquaria, sans fish, fronds, and little ceramic castles. Sans anything but . . . ah. There.

In this one, the embryo was no bigger than my thumb, looking like a little curled tadpole, with head and tail this way and that, head decorated with a big blind bulge of developmental eye.

Who will you be? I wondered.

Someone who may be dear to me, in times to come?

Welcome, friend to be.

The next one seemed empty. Sealed and active, though, meaning a tiny blastula floated within, dividing and dividing again.

Row on row. Column on column. Tier on tier.

These ones here in their third week, like a cross between frog and lizard and ape. I read the tags and saw they were 64% human genotype, with varying admixtures of ape and fox, dog and cat, rat, bat, something called a hyrax that seemed to be a relative of the elephant.

Amazing.

Wonder how they thought of that?

Further on were advanced foeti who looked like hairy babies, stirring in their sleep, tumbling slowly, kicking, thrashing from time to time, mouths opening every now and again to drink in gulps of ersatz amnion.

Dream on, children. The best of life's already come and gone while you sleep.

I remember how surprised I was when I found out human neonates are born at this stage, squirting *inter anem et urinam*, unready for the world. How much sounder that we, optimods all, remain in the vat for so much longer.

I walked and climbed, looking for the lean-limbed, wet-furred almost born.

Ah. Here. Purple fur on that one. Lovely.

I found myself wondering which combination of genes had made that happen. Almost iridescent, compared to my own drab dark gray. These boys, I . . .

I felt a strange pang, looking at them.

Nothing.

Nothing there.

Nothing between their legs but wet fur.

I felt my breath grow short, my head filling with all sorts of . . . wild surmise, that's the phrase a dramaturge would use.

Neuter?

Well.

Maybe these will be happy. Something other than sex drive to make them do their jobs? I wonder what? Does it matter?

For some reason, I thought it did, little rivers of rage welling up, rage willing death, destruction, torture, horror, any kind of horror, all the horrors of every imaginary hell you care to name, on the master race that did this, that thought it would be . . . all right.

Well, they made *you*, Eltanin.

Was *that* all right?

I turned and walked away, feeling cold and ill, unwilling to listen to that other small voice, the one that wondered if these new optimods would be, somehow, happier.

Maybe they'll be better off after all.

I was standing on the balcony, silent, hands on the railing, looking down at the little tent city, embedded in local night, when Milla emerged from her tent, walking slowly toward the blue box of the nearest portapotty.

In the zero-gee zone, the dead starship motor had been replaced by a big, irregular rock, blotchy, white and gold striated with glistening strands of black.

Ice and stone, with deposits of aliphatic hydrocarbon goo. Oil for the engines of Earth.

Funny. I never knew anything but a robot to do that job. Why teach a human?

Milla was stopped on the plains below, just standing there, hands on hips, looking up at me. I thought about . . . I don't know. Waving to her? I did nothing, just stood still, looking back, though at this distance she was no more than a colored mannequin, hardly a shape at all.

I'm not sure how I even knew it was her, but I did, of course.

After a while, she began walking up the hill toward me.

I waited, silent, until she was there.

"I wondered if you'd come again."

That look in her eye, looking at me. What's that supposed to mean? I know what it'd mean in a drama, every man does, and every woman too. But now, now when it's *real*, I have to remind myself what dramas are not. Somewhere behind every one of them lies a dramaturge playing out his or her own dreams, fears, hatreds, angers . . . failings.

What does it mean that a person would give up real life to spend a lifetime spilling forth ersatz dreams, dreams consumed by others whose lives are so limited that they need . . . what? What do they need? Tell me, dramaturge, I'd like to know. What is it you think I need?

Milla said, "I'm glad you came back, Eltanin."

"Why?"

A measured look then, measuring me. "Take me for a walk, Eltanin. Take me away from here."

I took her to that room full of tall glass vats and floating embryos, where the optimods of tomorrow waited to be born.

Then I watched her walk among them, threading the vats, dodging robots who ignored her presence just as they ignored mine. Human? Humans are the lords of creation. Who knows why one would want to come here?

Watched her eyes brighten at all the furry little babies. Suddenly, I imagined her with babies of her own, squirting them out in a mess of blood and water, gathering them up to suckle at her breast.

Watching me watch her, Milla seemed amused.

Certain physical reactions are hard to hide, even when you're covered with fur.

Then I took her to the advanced vats, where perinates the size of ten-year-old human boys floated, writhing slowly in their tanks, fur wet and matted, stirring in currents of their own making, waiting to be born.

Milla was disturbed then.

Hard to know exactly why . . .

She murmured, "No childhood for you, then? You're just . . . born? Born and go right to work?"

"More or less." I'm not sure how they engineered us so we'd know how to talk as soon as the amnion drained from our lungs. I remember the day they let me out, spilling me onto a concrete floor, sticky fluids rushing away down floor drains and gone. I remember coughing and coughing, bleating out my discomfort, surrounded by a band of brothers, all of us nameless until the next day, when some optimods much like us, bigger, older, came along and gave us our names.

*Eltanin*. The name of a faraway star.

She put her hand on my shoulder, still looking at one of the . . . boys.

Came closer, close against my side, sliding her arm around my waist. "They're . . . pretty. Is that what you looked like, Eltanin?"

I shook my head, squirming, trying not to . . . "No." I pointed to the blank place between his legs, little furry place, and said, "You can see they've thought of a few improvements."

"Oh." Looking at me then, looking up at my face. She seemed to shiver, looking at the thing in the vat again, and said, "Could we go look at the stars again?"

"Sure."

The obdeck was, as always, deserted, the view out through the blister the same as always, cold stars, black sky, remote universe that'd be there even if we were not.

Still, it drew Milla's gaze, not quite taking her away from me.

Yes.

There's the kinship.

When I put my arm around her and drew her close, she didn't pull away, putting her head on my shoulder, still looking out at the stars. I can wonder about that, and never quite know. Maybe someday, if there's a someday in which I know her still, she'll tell me why. Until then . . .

She put her arm around me, as if knowing me, knowing what I wanted, knowing why, somehow making it all right, in my imagination at least, and said, "The Earth's going to die, isn't it, Eltanin?"

"I suppose so." Don't need a dramaturge to tell you why, or how. Or even when.

"And when it does, we'll all still be out here, won't we?"

"I suppose so."

"And all of us will still be the slaves of Standard ARM."

No question about it. No need to answer.

She said, "The universe is a big place, Eltanin. Time stretches out to a place no man can see. Maybe . . . maybe someday, our children will be free."

Awash in bitterness, I said, "*Our* children?"

She gave me a squeeze, half sympathy, half something else. "My children, Eltanin. Children I'll have with . . . human men."

Yes. Human men. Not the monkeydog likes of me.

And then she said, "The things in the vats . . ."

"What about them?"

She said, "Maybe . . . they looked like little girls to me. Little girl . . . optimods, is that what they call you?"

There was a long, incredibly hollow moment. "Girls. Why . . ."

She said, "I don't know."

And you, dramaturge. Do you know?

Of course you do.

Make me a self-replicating machine.

Tell me how to profit thereby.

Standard ARM knows its history too.

Eyes of green. Eyes of glass. Eyes of all my friends, here and gone. Lost. Forgotten. Found. What kind of eyes will these new ones have, I wonder?

And, looking out at the cold stars, white stars on sable nothing, wondering if either of us really had any reason for hope, I whispered, "*Someday.*" Not knowing quite why I said it, unable to know whether I lied or not.

Look away. ○

**ENDER'S SHADOW**  
 By Orson Scott Card  
 Tor, \$24.95 (hc)  
 ISBN: 0-312-86860-X

Card's *Ender's Game* is probably the single most widely read SF novel of the eighties—especially among the generation of readers under thirty. For many of them it was the first SF novel that really grabbed their imagination. With its combination of a protagonist who embodies many readers' daydreams about themselves—the bright misfit who uses brains to save the world from the alien menace—and the intriguing background of the Battle School, the novel (perhaps even more than the novelette from which it grew) hit nerves in its audience. And its central gimmick, the war game that turns out to be real, resonated in the minds of many readers—enough to become one of the great clichés of our time.

But none of the sequels to *Ender's Game*, beginning with *Speaker for the Dead*, have had the same impact as that novel (although they have won their share of awards and readers). The grown-up Ender Wiggin is a complex character, permanently changed by his recognition that his moment of triumph was the death knell for an entire alien species. But it is the Ender of the Battle School that captured everyone's attention, and it is to that era that Card returns with *Ender's Shadow*.

The jacket copy describes the new book as "a parallel novel to *Ender's Game*," as opposed to a sequel. What that means, in brief, is that *Ender's Shadow* covers many of the

same events of the first book, but through the eyes of a different viewpoint character: Bean, the diminutive boy who became Ender's key strategist in Battle School and in the final battle against the Buggers.

This approach provides several benefits. Battle School, like military training in all eras, is a highly stressful environment that puts characters under a microscope. (Thus the continuing popularity of military training, basic or otherwise, as a theme in military SF, from Heinlein on down to the present.) By examining the locale of his greatest success through the eyes of a new protagonist, Card recaptures much of the defining flavor of the earlier book.

Bean, a survivor of street life in the gang-ridden slums of Rotterdam, inevitably has a different take on the experience from Ender, product of a stable middle-class family that values intellect. He is also more curious about his immediate surroundings, exploring the space station on which the Battle School is located much more carefully than Ender ever did. (This also gives Card a chance to explain several minor scientific glitches in his initial invention.) And Bean's diminutive size forces him to adopt a radically pragmatic approach to problem-solving. Having faced a struggle for survival from his earliest days, he is in many ways more dangerous than Ender, to whom everything is in fact much like a game.

The downside of Card's decision to tell the story of another of Ender's

Battle School classmates is that a vast majority of the readers who pick up this new book already will have read *Ender's Game*, and know its major plot surprises. So Card has to create suspense by focusing on Bean's mysterious origins, and by giving him a mortal enemy who eventually turns up at Battle School and must be confronted. Neither of these attempts to pump up the level of tension is entirely convincing, to this reader. In particular, Card's resolution of the question of Bean's parentage seems calculated to produce a facile and sentimental conclusion to the book. And the deadly adversary is offstage too long, and disposed of too quickly when he does return.

Still, many of the strengths of *Ender's Game* are recaptured here. The child's-eye view of reality remains a strong tool for giving the reader a fresh perspective on experience. When the protagonist's origins are as stressful and perilous as Bean's—in one sense, the deadly serious Huck Finn to Ender's Tom Sawyer—the reader is often jolted into unusual insights. Card makes good use of this perspective to offer thought-provoking reconsiderations of the Battle School environment—Bean, unlike Ender, almost immediately begins to question its ultimate purpose and the competence of its instructors. Long before Ender grasps the true end of his training, Bean has figured out what it has to be.

*Ender's Game* remains a singular peak moment of its era in science fiction; not even Card has been fully able to match its appeal, either in the direct sequels or in his other work; not even the "Alvin Maker" fantasies have had the same broad impact. Still, most readers are likely to find this parallel journey through the same imaginative reality as *Ender's Game* rewarding and thought-provoking in its own right.

## THE TERRORISTS OF IRUSTAN

By Louise Marley

Ace, \$13.95 (tp)

ISBN: 0-441-00619-1

Marley's earlier books have been set in a world where the Gifted have a rare combination of musical talent and psychic abilities. Here, she turns to a more austere scenario, with a woman facing life and death moral issues that demand a choice between betraying the healer's art and betraying her humanity.

Irustan is a planet-wide mining colony, settled by a fanatical sect whose tenets will remind many readers of Islam. Women are the property of their male guardians, circumscribed by taboos and forbidden even to leave their homes without a male escort. Their legal and social status is perhaps a step above that of domestic animals in our society.

The primary values of the society are embodied in the mines, a dangerous and demanding career. The religion urges unwavering devotion to duty and stresses arduous labor as a value in its own right. Weakness and disease are signs of divine disfavor. As a result, the men of Irustan are extremely squeamish about their bodies and the illnesses to which they fall prey. Thus healing is the prerogative of women—one of the few professions into which they are allowed to enter.

Zahra, the wife of a powerful politician, is an unusually talented healer. But in the course of her duties, she cannot escape awareness of abused women, routinely beaten by the men who control them. Finally, pushed hard enough, she decides to save one endangered woman by the only means available to her: the murder of the man who has abused her. This is accomplished by giving him a deliberate dose of a deadly disease endemic to the planet, but usually kept under control by the medicants. The

only problem is that killing one man saves only one woman's life. So other men must die . . . but where to stop?

Marley builds on Zahra's moral conflict to create a complex portrait of her oppressive society, and of the outside worlds with which it must do business to survive. Unlike many feminist dystopias, Irustan is a world with a considerable degree of beauty. We see this aspect of it most directly through the eyes of Jin-Li, an employee of the Port Force that is the official contact between Irustan and the other worlds with which it trades the products of its mines. Port Force becomes suspicious of the deaths of local men, but its charter forbids interference with local custom. Jin-Li, who delivers medicines to Zahra and other medicants in the city, becomes the agent by which Port Force investigates and finally solves the crime wave.

This murder mystery, to which the reader already knows the answer, operates to open up windows both into Irustan and into the apparently more benign world of Port Force. And while the conclusion of Zahra's one-woman terrorist campaign is both predictable and inexorable, Marley manages to turn it into a triumphant window of opportunity for all the women of her world. Marley is obviously a writer to watch; recommended.

## **ROVERANDOM**

**By J.R.R. Tolkien**

**Ed. by Christina Scull &  
Wayne G. Hammond  
Houghton Mifflin, \$12.00 (tp)  
ISBN: 0-395-95799-0**

By now, J.R.R. Tolkien's heirs would appear to have exhausted the stock of unpublished writing the creator of Middle-Earth left behind. *The Hobbit* and the "Rings" trilogy have struck sparks in the minds of several generations of readers; most of the posthumously published work

has been of interest only to scholars. So ordinary readers may be pardoned if they're a bit skeptical of a "new" Tolkien fantasy, especially one that comes with a full scholarly apparatus, including footnotes to explain the author's jokes.

*Roverandom* was conceived in the 1920s, when during a seaside vacation Michael Tolkien, then five years old, lost a toy dog of which he was extremely fond. To help him come to terms with this childhood tragedy, Papa Tolkien improvised a story of the dog's adventures, in which little Rover meets various wizards, a dragon, and even goes to the Moon before being transformed into a real dog. Tolkien wrote down these bedtime stories, with an eye to turning them into something publishable. About ten years after the original telling of the stories, when his publishers had accepted *The Hobbit* and were looking for a follow-up, he polished up *Roverandom* for submission. Perhaps luckily for his readers, what his publishers really wanted was a sequel to *The Hobbit*, and Tolkien dutifully laid aside the story of the little dog, to concentrate on the work that created the fantasy genre as we know it today.

Read in that context, *Roverandom* is definitely a lesser work, although it has its enjoyable moments. Like *The Hobbit*, this story aims to amuse not only the children to whom it might be read, but the adults reading it to them. (As any parent can testify, it is easy to underestimate what children can understand, although that is not normally one of Tolkien's faults.) There are allusions to a wide body of history and folklore, comparatively sophisticated word-play, jokes growing out of popular culture, and a good number of private jokes that the editors have dutifully identified and explained.

How would one evaluate this story if the author had not gone on to write one of the centerpieces of modern fantasy? Certainly this is very much apprentice work; at the same time, in such points as Tolkien's portrayal of the irascible wizards, there are strong indications of the direction his work would eventually take. He already has the trick of suggesting something that he then leaves the reader's imagination to flesh out. In Rover's adventures with several other dogs, he shows some of his touch with broadly comic material that eventually surfaced in such characters as Bilbo and Sam. And there are brief glimpses of the extensive invented mythos around which Tolkien's mature works are built.

What the reader won't find here are the more elevated flights of drama and emotion that justify the "Rings" trilogy's status as a masterpiece of high fantasy. The absence of such moments in the story of a lost toy dog is hardly surprising, of course. This is in every way a light work, meant in fact to help Tolkien's son put his loss behind him. And while there are points at which a prepared reader can glimpse what the author would become, it is clear that this time out, he is more or less content to play the role of parent. *Roverandom* is not going to change anyone's evaluation of Tolkien. But it is a very pleasant addition to the lighter side of his oeuvre, taking its place with such worthy entertainments as "Farmer Giles of Ham."

**GREETINGS, CARBON-BASED  
BIPEDS! Collected Works 1934-  
1998**

**By Arthur C. Clarke**  
**St. Martin's, \$35.00 (hc)**  
**ISBN: 0-312-19893-0**

Arthur C. Clarke needs no introduction to the readers of this magazine; his work is a cornerstone of

modern science fiction. But today's readers may not be aware that he has always been equally at home in nonfiction. In fact, it could be argued that his nonfiction is every bit as important as his fiction.

This collection is a sampling of Clarke's interests over seven decades. The early pieces include fan-nish appreciations ("Dunsany, Lord of Fantasy") and book and film reviews ("The Conquest of Space," "Destination Moon"). Typically, the latter tend to place the highest value on scientific accuracy. Later articles include prefaces to classic works by Wells, and tributes to such colleagues as Robert Bloch and Gene Roddenberry. A 1950 talk on the history of fictional space travel (given to the British Interplanetary Society) shows a strikingly wide range of reading, well beyond what would have been on most libraries' scanty SF shelves at the time.

Clarke has also been an active force in creating the future, most obviously in the famous 1948 paper in which he invented the idea of artificial communications satellites. This collection is also a reminder of Clarke's rarely matched knowledge of the nuts and bolts of space travel, from the days when the V-2 rocket was state-of-the-art to the shuttle era. His topics include a look at astronomical fallacies (e.g., the difference between orbital weightlessness and "escaping gravity"), an expression of hope that the space age could open a new Renaissance, a proposal to safeguard Earth from meteor and comet impacts, and a more-or-less sober consideration of orbital sex.

He has also been an important advocate for rational investigation of the fringes of science: two articles on UFOs from the 1950s show an impressive knowledge of unusual optical and meteorological phenomena, as well as of scientific history. And he has kept an open mind

about the supernatural realm; he quotes J.B.S. Haldane as having told him, "You are one of the very few living persons who has written anything original about God." And that was before 2001!

Clarke was also one of the pioneers of underwater exploration. That interest—from which he made a fair part of his living for many years—finds expression in an early article on the future of scuba-diving resorts and in excerpts from several books that grew out of his own diving expeditions. Again, Clarke was not just an armchair explorer; he put on the gear and went into the water, and has the battle scars to show for it.

This brief summary barely scratches the surface of this fascinating collection, in which Clarke's reasonable, witty, and often elegant approach illuminates subjects from fractal math and Martian geology to advanced communications and gays in the military—all given context by Clarke's entertaining prefaces.

As always, the essays here shine a spotlight on some of Clarke's most central concerns, and often illuminate ideas that lurk beneath the surface of his fiction. Essential reading for anyone who has enjoyed his work.

## **ALMOST EVERYONE'S GUIDE TO SCIENCE**

**By John Gribbin with  
Mary Gribbin  
Yale University Press,  
\$24.95 (hc)  
ISBN: 0-300-08101-4**

British astronomer John Gribbin, who has written numerous science books for the layman, tops himself with this one-volume summary of the current state of scientific knowledge. As the title acknowledges, this is intended very much as a successor to *Asimov's Guide to Science*—and even to a reader who grew up

on the Good Doctor's science writing, it is an undoubted success.

With the help of his wife Mary (who reined him in whenever he began to get too technical), Gribbin tries to give the broadest possible picture of what science knows about the universe, from the subatomic level up to the cosmos as a whole. Taking as his credo the simple scientific principle, "If it disagrees with experiment it is wrong," he attempts to give the reader an idea of the way scientists create models of how the world works and then put those models to the most exacting tests they can devise.

Gribbin begins with the concept of atoms and elements, which is the starting point for much of modern science. As useful as the atomic hypothesis was in understanding such phenomena as the behavior of gasses, it was not until Einstein that the hypothesis was widely accepted as a factual description of reality. By that point, evidence that the atom itself was a complex entity, made of smaller particles, had already begun to accumulate. And as we now understand, the activity of one of those particles—the electron—is responsible for all of chemistry. With the development of quantum mechanics, the behavior of the electron can not only be explained, it can be calculated with remarkable precision.

Having laid down the principles of chemistry, Gribbin turns the discussion to organic chemistry, through the structure of DNA to a broader overview of genetics and evolution. Gradually expanding his focus, he goes on to examine geology and the history of the Earth, then to astronomy and stellar evolution, ending up with an overview of cosmology and the structure of the universe as a whole. Gribbin is quick to make connections between the various sciences he discusses. For example, he

explains the simple quantum mechanical reason for the vital fact that ice floats and why this makes life possible. In fact, this is the first popular science book I've read that gives the specific physical explanation for that phenomenon.

Gribbin spices up his narrative with anecdotes about the scientists responsible for various theories and discoveries, and draws usefully on everyday experience to illustrate his material. While he provides sufficient detail to give the various subjects immediacy, his eye is always on the big picture—how the world

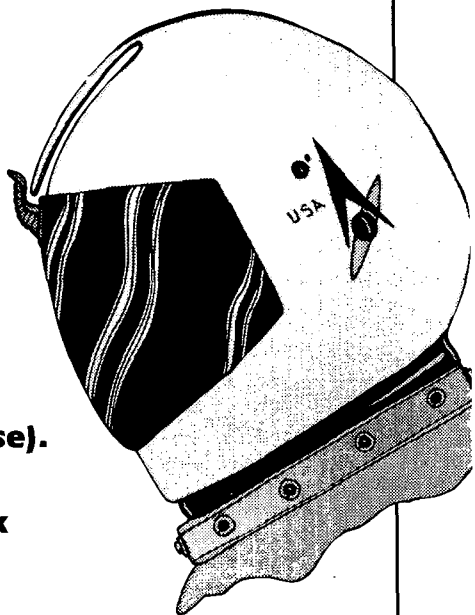
fits together, and what it means to each of us. He is a strong defender of the scientific process; where appropriate, he takes pains to refute the claims of anti-scientific and pseudo-scientific thinkers. And, like Asimov, he knows when to throw in a touch of humor.

In short, this is a definitive and up-to-date treatment of the subject, clearly written and down to earth, with a good awareness of historical context. If you're going to have just one general science book on your reference shelf, this one would be an excellent choice. ○

## **10 THINGS YOU CAN'T DO INSIDE A SPACE HELMET**

**Nurse.  
Blow bubbles.  
Spit.  
Chew your nails.  
Gnaw on a turkey leg.  
Play the clarinet.  
Smoke a pipe.  
Shave.  
Apply lipstick.  
Kiss (French or otherwise).**

**—G. O. Clark**



# INDEX

This index covers volume 23 of Asimov's Science Fiction magazine, January 1999 through December 1999. Entries are arranged alphabetically by author. When there is more than one entry for an author, listings are arranged alphabetically according to the story/article title. All entries are followed by a parenthetical note: (a) article; (c) cartoon; (ed) editorial; (ge) guest editorial; (na) novella; (nt) novelette; (p) poem; (r) review; and (ss) short story. Collaborations are listed under all authors and are cross-referenced. When a title, a parenthetical note, or an author's name is omitted, it is the same as that of the previous entry.

|                                                                            |                                                                                         |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Abraham, Daniel—<br>Jaycee (ss) . . . . . Dec 50                           | Daniels, Keith Allen—<br>On the Wave-Particle Duality<br>of Ghosts (p) . . . . . Jan 83 |
| Addison, Linda D.—<br>wanted@love.org (p) . . . . . Jun 65                 | Di Filippo, Paul—<br>On Books (r) . . . . . Feb 132                                     |
| Armstrong, Michael A.—<br>Recalled to Home (nt) . . . . . Apr 58           | — . . . . . Apr 132                                                                     |
| Arnason, Eleanor—<br>Dapple (na) . . . . . Sep 104                         | — . . . . . Jun 132                                                                     |
| Stellar Harvest (nt) . . . . . Apr 102                                     | — . . . . . Aug 133                                                                     |
|                                                                            | — . . . . . Dec 132                                                                     |
| Baker, Kage—<br>Smart Alec (nt) . . . . . Sep 50                           | Doctorow, Cory—<br>Visit the Sins (nt) . . . . . Jun 52                                 |
| Son Observe the Time (na) . . . . . May 92                                 | Dozois, Gardner—<br>13th Annual Readers' Award<br>Results (a) . . . . . Sep 8           |
| Barton, William—<br>Soldiers' Home (nt) . . . . . May 14                   | A Knight of Ghosts and<br>Shadows (nt) . . . . . Oct/Nov 82                             |
| Baxter, Stephen—<br>Spindrift (ss) . . . . . Mar 44                        | Duchamp, L. Timmel—<br>Living Trust (na) . . . . . Feb 12                               |
| Berman, Judith—<br>The Window (nt) . . . . . Aug 46                        | Duncan, Andy—<br>The Executioners' Guild (na) . . . . . Aug 88                          |
| Bishop, Michael—<br>Secrets of the Alien<br>Reliquary (p) . . . . . Jul 71 | Dyer, S.N.—<br>Original Sin (ss) . . . . . Jan 70                                       |
| Bond, Nelson—<br>Proof of the Pudding (ss) . . . . . Oct/Nov 139           | Esaias, Timons—<br>Correcting the Record (p) . . . . . Dec 91                           |
| Boston, Bruce—<br>Another Short Horror Story (p) . . . Oct/Nov 158         | Eisenberg Haiku (p) . . . . . May 91                                                    |
| Beware the Werecanary! (p) . . . . . Oct/Nov 116                           |                                                                                         |
| Curse of the Fantasy<br>Writer's Wife (p) . . . . . Sep 38                 | Feeley, Gregory—<br>Ladies in Their Letters (nt) . . . . . Jun 66                       |
| Curse of the Incubus' Wife (p) . . . . Jun 83                              | Fintushel, Eliot—<br>Iz and the Blue God (nt) . . . . . Apr 84                          |
| Curse of the Reaper's Wife (p) . . . . Oct/Nov 225                         | Open Mike (ss) . . . . . Dec 92                                                         |
| Curse of the Quark's Wife (p) . . . . . Dec 59                             | Freireich, Valerie J.—<br>Suburban Ecology (ss) . . . . . Aug 42                        |
| Down in Your Bones Only<br>You Alone Know (p) . . . . . Oct/Nov 80         | Friesner, Esther M.—<br>Chanoyu (nt) . . . . . Mar 70                                   |
| Mathematical Limericks (p) . . . . . Sep 99                                |                                                                                         |
| D'Ammassa, Don—<br>Wormdance (ss) . . . . . May 70                         | Garcia y Robertson, R.—<br>Diana by Starlight (nt) . . . . . Mar 14                     |
| Daniel, Tony—<br>In From the Commons (ss) . . . . . Oct/Nov 108            | Haldeman, Joe—<br>Dog Star (p) . . . . . Mar 128                                        |
| Mystery Box (nt) . . . . . Apr 10                                          | Hecht, Jeff—<br>The Rumor of the Ruined City (ss) . . Apr 74                            |
| Daniels, Danny—<br>hook (p) . . . . . Jan 130                              |                                                                                         |
| splashdown (p) . . . . . Sep 69                                            |                                                                                         |

|                                    |         |     |  |
|------------------------------------|---------|-----|--|
| Heck, Peter—                       |         |     |  |
| On Books (r)                       | Jan     | 131 |  |
| —                                  | May     | 136 |  |
| —                                  | Sep     | 136 |  |
| Hendrix, Howard V.—                |         |     |  |
| The Dream Wave of John Scott       |         |     |  |
| Russell (p)                        | Oct/Nov | 69  |  |
| Jennings, Phillip C.—              |         |     |  |
| Old Glory (ss)                     | May     | 80  |  |
| Keith, Jr., William H.—            |         |     |  |
| Fossils (nt)                       | Aug     | 16  |  |
| Kelly, James Patrick—              |         |     |  |
| 10 <sup>16</sup> to 1 (nt)         | Jun     | 10  |  |
| On the Net: Comics (a)             | Dec     | 8   |  |
| — Content (a)                      | Jul     | 10  |  |
| — Sci-Fi (a)                       | Sep     | 12  |  |
| — TANSTAAFL (a)                    | Jan     | 8   |  |
| — Which Way? (a)                   | Mar     | 8   |  |
| — Writing (a)                      | May     | 8   |  |
| Krider, Dylan Otto—                |         |     |  |
| Entropy I: The Original Text (p)   | Jan     | 69  |  |
| Kulpa, Kathryn—                    |         |     |  |
| The Night Copernicus Died (ss)     | Feb     | 44  |  |
| Landau, Miriam—                    |         |     |  |
| Allies (ss)                        | Mar     | 84  |  |
| Landis, Geoffrey A.—               |         |     |  |
| Christmas (after we all get        |         |     |  |
| time machines) (p)                 | Dec     | 48  |  |
| Interview With an Artist (ss)      | Jul     | 92  |  |
| Into the Blue Abyss (ss)           | Aug     | 74  |  |
| Lawson, Chris—                     |         |     |  |
| Written in Blood (ss)              | Jun     | 40  |  |
| Lunde, David—                      |         |     |  |
| A Picture Postcard of the          |         |     |  |
| Cerne Abbas Giant (p)              | May     | 69  |  |
| MacLeod, Ian R.—                   |         |     |  |
| The Chop Girl (nt)                 | Dec     | 60  |  |
| Malartre, Elisabeth—               |         |     |  |
| Evolution Never Sleeps (ss)        | Jul     | 58  |  |
| Marusek, David—                    |         |     |  |
| Cabbages and Kales, or, How We     |         |     |  |
| Downsized North America (nt)       | Feb     | 56  |  |
| The Wedding Album (na)             | Jun     | 94  |  |
| Yurek Rutz, Yurek Rutz,            |         |     |  |
| Yurek Rutz (ss)                    | Jan     | 40  |  |
| Mayhew, Joe—                       |         |     |  |
| Dinner will be late (c)            | Oct/Nov | 67  |  |
| For Sale Cheap (c)                 | Mar     | 95  |  |
| I'd go out and get a life (c)      | Jan     | 7   |  |
| Last time I buzzed ol'             |         |     |  |
| Roswell (c)                        | Jul     | 43  |  |
| Please don't force me (c)          | Oct/Nov | 237 |  |
| She was a lovely child (c)         | Sep     | 68  |  |
| Moffet, Judith—                    |         |     |  |
| Atlantis (p)                       | Apr     | 36  |  |
| Nordley, G. David—                 |         |     |  |
| Mustardseed (ss)                   | Sep     | 100 |  |
| Parker, Charles—                   |         |     |  |
| Another reason the                 |         |     |  |
| dinosaurs (c)                      | Jan     | 129 |  |
| Well I still think mixed dorms (c) | Feb     | 141 |  |
| Purdum, Tom—                       |         |     |  |
| Fossil Games (nt)                  | Feb     | 100 |  |
| Woman's Work (ss)                  | Aug     | 68  |  |
| Rathbone, Wendy—                   |         |     |  |
| The Watchers (p)                   | Feb     | 131 |  |
| Reed, Robert—                      |         |     |  |
| Baby's Fire (na)                   | Jul     | 96  |  |
| Human Bay (ss)                     | May     | 40  |  |
| Mac and Me (nt)                    | Feb     | 76  |  |
| Nodaway (nt)                       | Sep     | 16  |  |
| Resnick, Mike—                     |         |     |  |
| Hothouse Flowers (ss)              | Oct/Nov | 70  |  |
| Hunting the Snark (na)             | Dec     | 96  |  |
| Reynolds, Alastair—                |         |     |  |
| Angels of Ashes (nt)               | Jul     | 72  |  |
| Viper (ss)                         | Dec     | 78  |  |
| Robinson, Kim Stanley—             |         |     |  |
| Arthur Sternbach Brings the        |         |     |  |
| Curveball to Mars (ss)             | Aug     | 8   |  |
| A Martian Romance (nt)             | Oct/Nov | 14  |  |
| Sexual Dimorphism (ss)             | Jun     | 28  |  |
| Rusch, Kristine Kathryn—           |         |     |  |
| Bonding (nt)                       | Apr     | 38  |  |
| Sanders, William—                  |         |     |  |
| Dirty Little Cowards (ss)          | Jun     | 84  |  |
| Sandner, David—                    |         |     |  |
| The Possibility of Love            |         |     |  |
| on Mars (p)                        | Jun     | 8   |  |
| Shawl, Nisi—                       |         |     |  |
| The Pragmatical Princess (ss)      | Jan     | 84  |  |
| Shelley, Rick—                     |         |     |  |
| The Alien (nt)                     | Mar     | 96  |  |
| Shepherd, Aaron—                   |         |     |  |
| A Flop: The Perpetual Talking      |         |     |  |
| Wristwatch (c)                     | Apr     | 56  |  |
| Shockley, William M.—              |         |     |  |
| By Non-Hatred Only (ss)            | Jul     | 44  |  |
| Silverberg, Robert—                |         |     |  |
| Autographs (ed)                    | Oct/Nov | 4   |  |
| The Best Is Yet to Be ...          |         |     |  |
| Right? (ed)                        | May     | 4   |  |
| End of the World Canceled (ed)     | Feb     | 4   |  |
| The Great Tradition (ed)           | Dec     | 4   |  |
| HTTP, etc. (ed)                    | Sep     | 4   |  |

|                                           |         |     |                                     |         |     |
|-------------------------------------------|---------|-----|-------------------------------------|---------|-----|
| Let's Hear it for Neanderthal             |         |     | Swanwick, Michael—                  |         |     |
| Man (ed) .....                            | Jan     | 4   | Ancient Engines (ss) .....          | Feb     | 94  |
| Lost in Translation (ed) .....            | Apr     | 4   | Riding the Giganotosaur (ss) .....  | Oct/Nov | 142 |
| The More Things Change (ed) .....         | Jun     | 4   | Scherzo with Tyrannosaur (ss) ..... | Jul     | 20  |
| More Thoughts About the                   |         |     | Tiedemann, Mark W.—                 |         |     |
| End of the World (ed) .....               | Mar     | 4   | Gallo (ss) .....                    | Mar     | 58  |
| The Wheel Keeps Turning (ed) .....        | Aug     | 4   | Tilton, Lois—                       |         |     |
| Y2K II: The Disaster Continues (ed) ..... | Jul     | 4   | Dragon's Teeth (nt) .....           | Jan     | 50  |
| Spinrad, Norman—                          |         |     | The Scientific Community (ss) ..... | Sep     | 40  |
| On Books: Closure (r) .....               | Oct/Nov | 226 | Turtledove, Harry—                  |         |     |
| —— Mutants and                            |         |     | Forty, Counting Down (na) .....     | Dec     | 12  |
| Crossovers (r) .....                      | Jul     | 129 | Wadholm, Richard—                   |         |     |
| —— The Pulp Tradition (r) .....           | Mar     | 130 | Green Tea (nt) .....                | Oct/Nov | 118 |
| Stableford, Brian—                        |         |     | The Ice Forest (nt) .....           | Jan     | 14  |
| Another Branch of the                     |         |     | Watkins, William John—              |         |     |
| Family Tree (nt) .....                    | Jul     | 30  | Butterside Down (p) .....           | Apr     | 131 |
| Hidden Agendas (nt) .....                 | Sep     | 70  | Pioneer's Song (p) .....            | Mar     | 57  |
| The Oracle (nt) .....                     | May     | 53  | Williams, Sheila—                   |         |     |
| Steele, Allen—                            |         |     | The 1999 Isaac Asimov               |         |     |
| The Exile of Evening Star (na) .....      | Jan     | 94  | Award (a) .....                     | Jul     | 8   |
| Strauss, Erwin S. —                       |         |     | Williams, Walter Jon—               |         |     |
| Conventional Calendar (a) .....           | Jan     | 143 | Argonautica (na) .....              | Oct/Nov | 160 |
| .....                                     | Feb     | 143 | Williamson, Jack—                   |         |     |
| .....                                     | Mar     | 143 | Survival, A Brief Reflection on a   |         |     |
| .....                                     | Apr     | 142 | Life in Science Fiction (ge) .....  | Oct/Nov | 8   |
| .....                                     | May     | 142 | Willis, Connie—                     |         |     |
| .....                                     | Jun     | 142 | The Winds of Marble Arch (na) ...   | Oct/Nov | 30  |
| .....                                     | Jul     | 142 | Winter, Laurel—                     |         |     |
| .....                                     | Aug     | 142 | When an Alien is Inhabiting         |         |     |
| .....                                     | Sep     | 142 | Your Body (p) .....                 | Oct/Nov | 28  |
| .....                                     | Oct/Nov | 238 |                                     |         |     |
| .....                                     | Dec     | 142 |                                     |         |     |



# FOURTEENTH ANNUAL READER'S AWARDS

It's the January issue again, the start of another new year, and as our long-time readers know, that means that once again it's time for our Readers' Award poll. **Please vote. Your ballot will be automatically entered in our drawing for a free one-year subscription.** Most of you know the drill by now. For those of you who are new to this, we should explain a few things.

We consider this to be our yearly chance to hear from you, the readers of the magazine. That's the whole point behind this particular award. What were your favorite stories from *Asimov's Science Fiction* last year? This is your chance to let us know what novella, novelette, short story, poem, cover artist, and interior artist you liked best in 1999. Just take a moment to look over the Index of the stories published in last year's issues of *Asimov's* (pp.137-139) to refresh your memory, and then list below, in the order of your preference, your three favorites in each category.

Some cautions: Only material from 1999-dated issues of *Asimov's* is eligible (no other years, no other magazines, even our sister magazine *Analogue*). **Each reader gets one vote, and only one vote.** If you use a photocopy of the ballot, please be sure to include your name and address; your ballot won't be counted otherwise.

Works must also be categorized on the ballot as they appear in the Index. No matter what category you think a particular story ought to appear in, we consider the Index to be the ultimate authority in this regard, so be sure to check your ballots against the Index if there is any question about which category is the appropriate one for any particular story. In the past, voters have been careless about this, and have listed stories under the wrong categories, and, as a result, ended up wasting their votes. All ballots must be postmarked no later than **February 1, 2000** (how strange to type that date, after a lifetime of typing dates starting with 19—!), and should be addressed to: Readers' Award, *Asimov's Science Fiction*, Dell Magazines, 475 Park Avenue South, 11th Flr., New York, NY. 10016. You can also vote via the Internet at [asimovs@dellmagazines.com](mailto:asimovs@dellmagazines.com), but you must give us your whole U.S. mailing address. We also hope to post ballots at our website, so please check us out at [www.asimovs.com](http://www.asimovs.com).

Remember, you—the readers—will be the only judges for this award. No juries, no panels of experts. You are in charge here, and what you say goes. In the past, some categories have been hotly contended, with victory or defeat riding on only one or two votes (last year, a category was decided by one vote!), so every vote counts. Don't let it be your vote for your favorite stories that goes uncounted! Some years, that one vote might have made all the difference. So don't put it off—vote today!

The winners will be announced in an upcoming issue.

**BEST NOVELLA:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**BEST NOVELETTE:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**BEST SHORT STORY:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**BEST POEM:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**BEST COVER ARTIST:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**BEST INTERIOR ARTIST:**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

# SF CONVENTIONAL CALENDAR

**T**here's one last weekend of all-out conventioning, before things slow down. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of con(vention)s, a sample of SF folksongs, and info on fanzines and clubs, and how to get a later, longer list of cons, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con 6 months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard.—Erwin S. Strauss

## NOVEMBER 1999

26-28—**LosCon**. For info, write: 11513 Burbank Blvd., N. Hollywood CA 91601. Or phone: (818) 767-9234 (10 AM to 10 PM, not collect). Con will be held in: Burbank CA (if city omitted, same as in address) at Airport Hilton. Guests will include: Connie Willis, Alex Ross, Joe Siclari, J. Michael Straczynski. LA's big annual affair.

26-28—**ConCat**. (423) 523-6986. (E-mail) [chlolea@mailexcite.com](mailto:chlolea@mailexcite.com). Hyatt, Knoxville TN. Neil Gaiman, Lisa Snellings.

26-28—**SiliCon**. (408) 541-0358. (Web) [awit.com/silicon/index](http://awit.com/silicon/index). Westin Hotel, Santa Clara CA.

26-28—**ChambanaCon**. (513) 651-0427. Clarion Hotel, Champaign IL. A. Offutt, S. Jude, D. Cook, W. A. (Bob) Tucker.

26-28—**EmpireCon**. (514) 871-1402. (E-mail) [empirecon@webtv.net](mailto:empirecon@webtv.net). Holiday Inn Midtown, Montreal PQ. Media SF.

26-28—**Trek Celebration**. (913) 327-8735. (E-mail) [sfedora1@aol.com](mailto:sfedora1@aol.com). Indianapolis IN. Commercial Star Trek event.

27-28—**Zimbabwe National SF Conference**. (E-mail) [morgan@harare.lafrica.com](mailto:morgan@harare.lafrica.com). Harare, Zimbabwe.

27-28—**Creation Thanksgiving**. (818) 409-0960. Long Island NY. Commercial event for Star Trek and other SF media.

27-28—**Creation Hercules/Xena Show**. (818) 409-0960. O'Hare Ramada, Rosemont (Chicago) IL. Commercial event

## DECEMBER 1999

2-5—**NordCon**. (+48 58) 531-073. (E-mail) [papier@gkf.3miasto.pl](mailto:papier@gkf.3miasto.pl). Gdansk Poland. Annual meet of Polish SF clubs.

3-5—**DraCon**. (E-mail) [dracon@post.cz](mailto:dracon@post.cz). Hotel Santon, Brno, Czech Republic.

10-12—**SMOFCon**, Box 61363, Sunnyvale CA 94088. [smofcon@sfsfc.org](http://smofcon@sfsfc.org). New Orleans LA. Con runners talk shop.

10-12—**Festival de SF**, c/o Taboulet, 12 Av. de Paris, Roanne 42334, France. (04 77) 72 09 25. (E-mail) [taboulet@ardep.fr](mailto:taboulet@ardep.fr).

13-18—**Sci Fi Sea Cruise**, Box 936135, Margate FL 33093. (954) 971-7602. Miami/Mexico cruise on Carnival Imagination.

## JANUARY 2000

7-9—**RustyCon**, Box 84291, Seattle WA 98124. (E-mail) [bobbied@microsoft.com](mailto:bobbied@microsoft.com). (Web) [ironhorse.com/~rustycon](http://ironhorse.com/~rustycon).

7-9—**GAFilek**, 2175 Lenox Rd. #B-5, Atlanta GA 30324. (E-mail) [xwinger@cwix.com](mailto:xwinger@cwix.com). College Park. SF/fantasy folksinging.

14-16—**Arisia**, 1 Kendall Sq. #322, Cambridge MA 02139. (E-mail) [info@arisia.org](mailto:info@arisia.org). Boston MA. Yolen, Kidd, Sbarsky.

14-16—**ChattaCon**, Box 23908, Chattanooga TN 37422. (E-mail) [info@chattacon.org](mailto:info@chattacon.org). Clarion. Harper, Scott, Jainschigg.

14-16—**MarsCon** c/o Allen, 429-7 Lester Rd., Newport News VA 23601 [marscon@erols.com](mailto:marscon@erols.com) Ramada, Williamsburg VA

15-16—**Florida Extravaganza**, 2242 Otter Creek Ln., Sarasota FL 34240. (941) 343-0094. Convention Center, Orlando FL.

21-23—**ConFusion**, Box 8284, Ann Arbor MI 48107. (E-mail) [confusion@stilyagi.org](mailto:confusion@stilyagi.org). Van Dyke Park Suites, Warren MI.

22-23—**Creation Hercules/Xena Show**, 100 W. B'way 1200, Glendale CA 91210. (818) 409-0960. Pasadena (CA) Center.

## AUGUST 2000

31-Sep. 4—**ChiCon 2000**, Box 642057, Chicago IL 60664. Bova, Eggleton, Baen, Turtledove, Passovoy, WorldCon. \$150.

## AUGUST 2001

30-Sep. 3—**Millennium PhilCon**, Box 310, Huntingdon Valley PA 19006. Philadelphia PA. WorldCon. \$135.

## AUGUST 2002

30-Sep. 3—**ConJose**, Box 61363, Sunnyvale CA 94088. San Jose CA. WorldCon. \$100.

# CLASSIFIED MARKETPLACE

Asimov's January '00

Advertise in the World's leading science fiction magazines with our Asimov's/Analog combined classified section. Ad Rates per issue: \$2.95 per word (10 word minimum), \$125 per column inch (2.25 inch maximum). SPECIAL INTRODUCTORY OFFER: Buy two issues and receive a third issue FREE. Send orders to: Dell Magazines, Classified Department, P.O. Box 1510, Clearwater, FL 33757-1510. Direct inquires to: (800) 237-9851; Fax (727) 445-9380.

## ANNOUNCEMENTS

**L & L EDITING:** gajewski@imt.net; (406) 651-0384, POB 80267, Billings, MT 59108.

## BOOKS/PUBLICATIONS

**BUYING SCIENCE FICTION** magazines, book collections. Will travel for large accumulations. Bowman, Box 167, Carmel, IN 46082.

**GIBRALTAR EARTH.** A new novel by Michael McCollum. <http://www.scifi-az.com>, on the Internet.

## BOOKS/PUBLICATIONS

**HUMAN AS ALIEN** in Earth Alien, novel by Mark Walker. [www.earthalien.com](http://www.earthalien.com) Order: (800) 247-6553.

**CLASSIFIED ADS** under this heading or any of the other 18 subject areas we offer can be very rewarding.

## INSTRUCTION

**PIANO TUNING PAYS:** Learn with American School Home-Study Course. (800) 497-9793.

## FREE AD OFFER

### IN OUR SCIENCE FICTION MAGAZINE COMBO

Place an ad in our next two issues and receive  
a third issue FREE!

Call today:

**(800) 237-9851 • FAX (727) 445-9380**

## CLASSIFIED ORDER FORM

\_\_\_\_\_ words at \$ \_\_\_\_\_ per word = \$ \_\_\_\_\_ x \_\_\_\_\_ weeks = \$ \_\_\_\_\_

Card # \_\_\_\_\_ Exp. date \_\_\_\_\_

Signature \_\_\_\_\_ Phone # \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

## DELL MAGAZINES

Classified Department, P.O. Box 1510, Clearwater, FL 33757-1510  
E-Mail: [scifiction@rja-ads.com](mailto:scifiction@rja-ads.com)

# NEXT ISSUE

## FEBRUARY COVER STORY

Popular author **G. David Nordley**, one of the modern masters of high-tech space adventure, returns to these pages next issue with our February cover story, taking us to an environment as wondrously strange and dazzlingly imaginative as any you're ever going to find anywhere in science fiction, a place where you can literally CLIMB from one planet to another, hand over hand, and hauls us aloft for a suspenseful and hair-raising adventure, full of strange dangers and stranger wonders, as well as flight, conflict, discovery, death, and transfiguration, all played out in "The Forest Between the Worlds." The evocative cover is by writer and artist **Wolf Read**.

## PLUS OTHER TOP-FLIGHT WRITERS

Our February issue also features multiple Hugo- and Nebula-winning author **Ursula K. Le Guin**, one of the true giants of the science fiction field, who takes us to a distant planet for a sly and fascinating look at the odd (and yet, somehow curiously familiar) behavior-patterns of "The Royals of Hegn."

Critically acclaimed writer **L. Timmel Duchamp** takes us to a paranoid high-tech future for the harrowing story of "How Josiah Taylor Lost His Soul"; multiple Nebula-winner **Esther M. Friesner** escorts us through the perilous and low-rent fringes of Lovecraft Territory—White Trash Gothic Territory, perhaps—for a very funny visit to "The Shunned Trailer"; new writer **James Sarafin** returns to be our guide on a danger-filled journey "Downriver" in a Post-Holocaust world; and **O'Neil De Noux**, making an action-packed and extremely fast-paced Asimov's debut, takes us on a wild headlong chase through the woods on an alien planet, with something "Tyrannous and Strong" (and very MAD) in hot pursuit.

## AND OUR EXCITING FEATURES

**Robert Silverberg's** "Reflections" column gives us an unparalleled view of "Six Degrees of Robert Silverberg"; and **Paul Di Filippo** brings us "On Books"; plus an array of cartoons, poems, letters, and other features. Look for our January issue on sale on your newsstand on December 21, 1999, or subscribe today (you can now also subscribe electronically, online, at our *Asimov's* Internet website, at <http://www.asimovs.com>), and be sure that you miss none of the great stuff we have coming up for you in the rest of the year!

## COMING SOON

great new stories by **Brian Stableford**, **Stephen Baxter**, **Kristine Kathryn Rusch**, **Robert Reed**, **Kage Baker**, **Tom Purdom**, **Lois Tilton**, **Michael Swanwick**, **Eileen Gunn**, **Pat Murphy**, **Andy Duncan**, **Eliot Fintushel**, **Jane Yolen**, and many others.

Celebrating 70 Years of Outstanding Science Fiction

# ANALOG

SCIENCE FICTION AND FACT

## 70TH ANNIVERSARY ISSUE

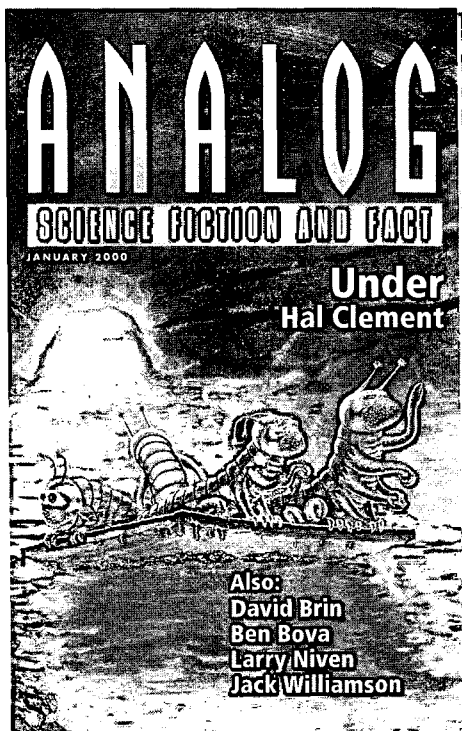
INSIDE THIS EXPANDED COLLECTOR'S ISSUE:

**HAL CLEMENT** returns us to the world of Mesklin in his sequel to *Mission of Gravity*

ALSO: **JACK WILLIAMSON** shares recollections and **MIKE RESNICK** offers a whimsical look at one of the ways science fiction has changed in the past seventy years

PLUS: new, thought-provoking fiction from the genre's leading authors:  
**BEN BOVA • LARRY NIVEN**  
**STEPHEN L. BURNS**  
**DAVID BRIN**

Articles, humor, award-winning fiction and much, much more!



Cover artwork by **KELLY FREAS**

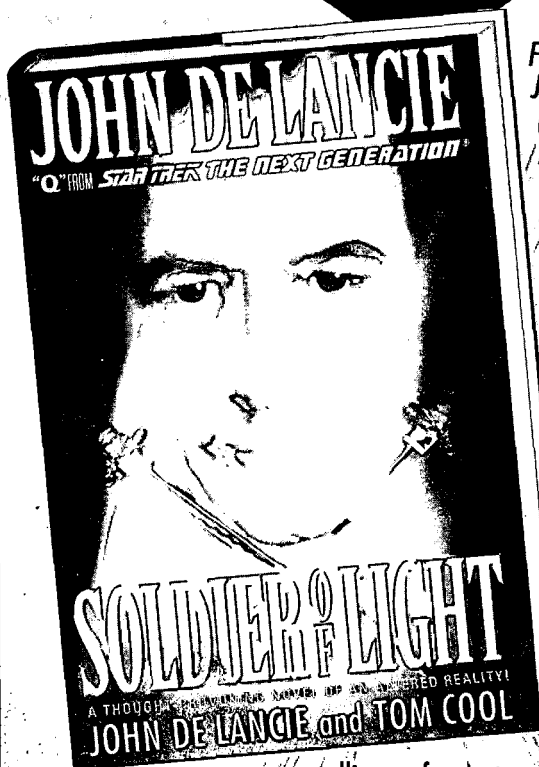
### ON NEWSSTANDS NOW

To get your copy, look for the January 2000 issue of *Analog Science Fiction and Fact* on sale at newsstands now, or send \$6.00 (includes postage and handling) to Analog's 70th Anniversary Issue, 6 Prowitt St., Norwalk, CT 06855-1220.

Make checks payable in US funds to Dell Magazines Direct. Please allow 6 to 8 weeks for delivery. For delivery outside USA add an additional \$2.00 (US funds).

LICENSED TO UNZ.ORG  
ELECTRONIC REPRODUCTION PROHIBITED

# IT'S A BATTLE BETWEEN TWO DIFFERENT WORLDS



From Star Trek's Q,  
John de Lancie, comes...  
**SOLDIER OF LIGHT**

The place is San Francisco. The time is the dark future. Civilization is in its final stages of collapse brought on by flawed human nature, selfishness...and a sinister alien presence. As society breaks apart and new

alliances form, strangers become locked in a crucial battle to determine the future of the brave new world.

**Available wherever  
books are sold**



**A POCKET BOOKS  
HARDCOVER**

**Also available from Star Trek® >**

© 1999 Paramount Pictures. All Rights Reserved

